DOCUMENT RESUME

ED 435 844 CE 079 438

AUTHOR	Wilkinson, Kelly S., Ed.
TITLE	Connecting Education with Careers. Business Education Association for Career and Technical Education Annual Convention Proceedings (Orlando, Florida, December 11-15, 1999).
INSTITUTION	Association for Career and Technical Education, Alexandria, VA. Business Education Division.
PUB DATE	1999-12-00
NOTE	73p.
PUB TYPE	Collected Works - Proceedings (021) -- Reports - Research (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Administrator Attitudes; *Business Education; *Career Education; Court Reporters; *Education Work Relationship; *Educational Needs; *Employer Attitudes; Employer Employee Relationship; Government Employees; Higher Education; Homosexuality; Job Skills; Learning Plateaus; Lesbianism; Needs Assessment; *Skill Development; State Government; State Surveys; Supervisory Training
IDENTIFIERS	Human Resource Specialists; Louisiana; Texas (Dallas); Texas (Fort Worth)

ABSTRACT

This document contains five refereed research papers on connecting education with careers through business education. "The Different Skill Levels Students Possess When Entering Computer Software Applications College Courses" (Michael McDonald) reports on a 1998 survey examining the perceived skill level differences of college students from six universities in five states who were enrolled in introductory computer applications courses. "Human Resource Managers' Perception of Nonverbal Communication" (Donald English, Janet Walker, Edgar Manton) presents the results of a survey of managers at the 200 largest companies in the Dallas/Fort Worth area. "Learning Plateaus in Student Skill Development: Perception of Court Reporting Instructors" (Joyce L. Sheets, Marcia A. Anderson) examines the rates and duration of learning plateaus among students learning court reporting skills. "Managers' Perceptions and Attitudes towards Gays and Lesbians in Business" (Lisa O'Hara, Bill McPherson) explores existing employer attitudes toward gays and lesbians and the types of instruction needed to improve awareness and understanding of gay and lesbian students. "Training Needs of Office Managers and Supervisors in State Government: Implications for Business Education" (Donna H. Redmann) reports on large-scale, statewide training needs of support/clerical employees in Louisiana state government. Four papers include substantial bibliographies. (MN)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 435 844

BUSINESS EDUCATION 1999 ACTE ANNUAL CONVENTION

Connecting Education with Careers

Edited by Kelly S. Wilkinson
Indiana University of Pennsylvania

December 11-15 1999
Peabody Hotel
Orlando Florida

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
K. S. Wilkinson
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CE079438

BEST COPY AVAILABLE

National Association of Teacher Educators For Business Education

Marcia Anderson, President
Southern Illinois University Carbondale

Nancy Zeliff, President-elect
Northwest Missouri State University

Donna Redmann, Secretary
Louisiana State University

Linda Henson Wiggs, Treasurer
Southwest Missouri State University

Birdie Holder, Past President
University of Nebraska-Lincoln

Executive Board

Betty Brown
Ball State University

Robert Matyska, Jr.
University of Georgia

Douglas Smith
University of Kentucky

Cheryl Wiedmaier
Eastern Kentucky University

Other NATEBE Appointments

Don Bright
Bowling Green University

Elinor Brown
University of Kentucky

Margaret Erthal
University of Southern Illinois

Lonnie Echternacht
University of Missouri

Mary Margaret Hostler
University of Wisconsin-Whitewater

Roger Luft
Eastern Illinois University

Michael McDonald
University of Southern Mississippi

Kelly Wilkinson
Indiana University of Pennsylvania

Dawn Woodland
Indiana University of Pennsylvania

FOREWORD

The following pages contain papers for the Annual ACTE Conference held in Orlando Florida, December 11-15 1999. The conference theme this year, Connecting Education with Careers, included such diverse topics as managers' perceptions of gays and lesbians, skill levels of college students, learning plateaus of student skill development, nonverbal communication, and training needs of office managers and supervisors.

Papers for the business division research session were submitted to a blind referee process. Six papers were accepted for presentation at the research session with five published in the first proceedings.

These proceedings begin a new chapter in the research of business education by encouraging more research. Thanks to all the participants and reviewers for their time and effort.

Kelly S. Wilkinson
Editor, Proceedings for the 1999 ACTE Conference

BEST COPY AVAILABLE

TABLE OF CONTENTS

NATEBE Executive Board ii
Foreword iii

Refereed Research Papers

The Different Skill Levels Students Possess When Entering Computer Software Applications College Course 1
Michael McDonald

Human Resource Managers' Perception of Nonverbal Communication 11
Donald English
Janet Walker
Edgar Manton

Learning Plateaus in Student Skill Development: Perceptions of Court Reporting Instructors 20
Joyce L. Sheets
Marcia A. Anderson

Managers' Perceptions and Attitudes Towards Gays And Lesbians In Business 36
Lisa O'Hara
Bill McPherson

Training Needs of Office Managers and Supervisors in State Government: Implications for Business Education 45
Donna H. Redmann

The Different Skill Levels Students Possess When Entering Computer Software Applications College Courses

Michael L. McDonald, Ph.D.
The University of Southern Mississippi

Abstract

In the1998 fall semester, a survey was conducted that was designed to investigate the perceived skill level differences of college students enrolled in introductory computer applications courses. College students from six universities in five states made up the population for the study. The participants of the study were enrolled in introduction to computer applications courses.

The study concluded that vast differences exist in the perceived skill levels in introductory computer applications courses. Implications based on the study include, but are not limited to, the following: (a) Instructors of introductory computer applications software courses should decide whether they should re-teach students with a high skill levels or deliver new instruction. (b) Consideration should be given to teaching strategies that provide instruction at different skill levels and allow students to begin at different starting points. (c) When making decisions about the time allocated to the different computer software applications, instructors are encouraged to allot more time to the applications in which students report having the lowest skill levels. (d) Instructors should take measures to reduce the amount of instructional/learning redundancies in programs. (e) Students should be encouraged to take introductory computer software applications courses early in their programs.

Business and industry quickly incorporated computer applications technology into their process and procedures after the production of desktop computers began in the 1980s. Recognizing this change, business education programs responded with courses which addressed computer software applications concepts and skills and began delivering instruction to students. Computer software applications courses have been very successful over the last decade based upon student popularity and enrollment. Business and business education programs often achieved enrollment stability and growth by offering these courses.

The success of computer software applications courses was at its height when the popularity of desktop computer application programs was in its infancy and growing. "Today the personal computer (PC) is a fixture in most business organizations, large and small" (Alexander & Echternacht, 1990, p. 48). According to Daggett and Jaffarian (1990), computer technology has changed the nature of the workplace and the skills required of the worker. Responsibilities such as data entry and document formation historically have been viewed as

support activities; in the 1990s these responsibilities are becoming primary roles in the business workplace. Daggett and Jaffarian further contended that word processing, data processing, reprographics, and communications skills have become basic skills at every level.

Desktop computers and applications software have become more available over the past fifteen years. "In recent years high school business programs have made substantial additions to their offerings. The focus is still on preparation for work immediately following graduation from high school, and major attention is given to the development of computer skills" (Hall, 1990, p. 5).

Computers have been made available to students at educational institutions at all ages and grade levels. From preschool programs to universities, computers are provided by way of computer labs or individual computer work stations. Students also have access to computers in their homes and their places of work. The widespread availability of computers has allowed people to learn a great deal about them through self-instruction and their interaction for work, entertainment, obtaining information, and investigation or research activities.

Educational institutions are making computers available at all levels and in a variety of programs. In the past, business and business education programs have enjoyed being the predominant source for computer instruction in many educational institutions. Today, students receive different levels of computer instruction from virtually all educational areas. Pre-school children are learning the alphabet on computers. History teachers are incorporating electronic databases in their instruction. Journalism classes offer instruction and experience with desktop publishing applications. Science students are creating spectacular charts and graphs with graphing programs and electronic spreadsheets.

Traditionally, business and business education programs have offered instruction in word processing, electronic spreadsheets, electronic databases, and desktop publishing programs. In recent years these programs have also incorporated presentation software applications and Internet skills instruction into their curricula. When considering the computer availability and the vast sources of software instruction that have been made available to students, there is little surprise that students enter business and business education computer software applications courses with very different skill levels.

Statement of the Problem

Students are becoming more familiar with operating computers and using computer software applications programs. They are receiving instruction of many types, at all educational levels, and from a variety of sources. This often leads to redundancies in many individuals' life-long curriculum. Often students take computer software applications courses in middle school and secondary school business programs. Those students who attend post-secondary institutions may

repeat instruction on the same content (computer software applications skills). University, college, and/or departmental requirements may force students to repeat the same computer instruction. Frequently, when a student must repeat their computer software applications instruction, this instruction is on the same skill level. The skill level of instruction is frequently at the beginner to intermediate level. Repeating instruction often leads to feelings of frustration and wasted time by students. The problem this study addressed was to identify: (a) The perceived computer software applications skill levels of students entering "introduction to computer software applications" type courses at four-year colleges and universities, and (b) the class level in which students are enrolled in computer software applications courses at four-year colleges and universities. Students may be taking numerous courses that offer computer software applications instruction at the same skill level.

Purpose of the Study

The skill levels of students enrolling in business and business education computer applications courses in colleges and universities are becoming more varied. Students are experiencing greater diversified computer applications, more frequent interactions with computers, and increased availability of instruction. The challenge for business educators is to meet the computer software applications instructional needs of their students, while not enforcing numerous redundancies. "Teacher educators should provide leadership in conducting and applying research which assumes that instruction is based on valid information, new concepts, and technological advances" (Policies Commission for Business and Economic Education, 1993). If students in computer software applications courses are to be prepared appropriately, information relative to the types of software that should be taught and at what skill levels instruction should be focused, must be analyzed systematically.

The primary research objective of this study was to determine the computer software applications skills students perceive they possess who take introductory computer software applications courses at four-year colleges and universities. Further, this study also sought to determine if college students are taking other computer software applications courses prior to the courses designed to be introductory in nature. This study also investigated the college grade level in which students are taking introductory computer software applications courses.

Related Literature

Effective teaching of computer software applications is extremely important. Instructors must consider many variables to maximize their effectiveness.

> Teaching computer applications presents unique and exciting challenges and opportunities for both teachers and students. If applications courses are to be effective, they must be carefully planned in terms of content and materials, instructional methodology, time allotments, and appropriate assessment techniques. (Lundgren, Lundgren, & Mundrake, 1995, p. 1)

McEwen (1996) reported that the literature focusing on microcomputer applications contains very little research information on effective teaching strategies. She reported that although the field is flooded with textbooks concerning microcomputer applications, very few address appropriate instructional methods. According to McEwen, demonstrations, simulations, and self-paced learning are effective methodologies for delivering microcomputer applications instruction. McEwen reported that the largest percentage of computer applications instructors learned computer applications by way of "individual" or self-taught instruction. However, those instructors chose to use the "teacher centered" method in which their students are given instructions systematically in their classes. The instructors used demonstrations most frequently to model the skills being taught. Lecture, followed by drill and practice, was the least used method.

An article by Ostheimer (1999, p. 46) suggested that instruction becomes more effective when they simulate the workplace. According to Ostheimer, the most effective method to teach skills is "in context," within a real world environment instead of teaching abstract concepts.

An Educational Testing Service (ETS) report by Coley and Engel (1997) addressed the current status of computer technology in the classroom. The report stated that "research generally agrees that drill-and-practice forms of computer-assisted instruction are effective in producing achievement gains in students" (p. 6).

Ravitch (1998, p. 134) reported that too much money and resources are invested in technology, primarily hardware, and not enough in teaching and learning. According to Ravitch, "This year American schools will invest $5.2 billion in technology. Ten years ago there was one computer for every 37 students; now there is one for every 7, and 70% of American schools are on line." Ravitch raises the question: "Does this mania for technology make sense?" She contends that access to the Internet also means access to its seamy side, including pornography sites. Ravitch further reports that access to Internet information has encouraged plagiarism and stealing of academic information.

Methodology

A descriptive research design using the survey method was used to gather data for the study. Three university professors with experience teaching computer software applications courses reviewed the survey instrument for content validity. The instrument consisted of multiple choice and likert-type questions. The survey questions concentrated on determining the computer software applications of which students were familiar. Further, the survey inquired as to what skill levels students perceived they currently possessed. The survey instrument was distributed to the cooperating instructors via E-mail during the 1998 fall semester. College students enrolled in introduction to computer applications courses made up the population for the study. The purposive sample for this study came from six universities in five states. Descriptive statistics were used to analyze the data resulting from the survey.

Findings

The sample of the study consisted of 518 students enrolled in intact sections of undergraduate computer software applications courses. These courses were designed to be introductory and were conducted at six major universities located in five different states. Descriptive data regarding the subjects that returned the questionnaires are summarized in Table 1 and Table 2.

Table 1

Student Classifications of Participants

Student Classification	Number	%
Freshman	170	34.0
Sophomore	141	28.2
Junior	100	20.0
Senior	87	17.4
Graduate	2	0.4

Table 2

Age Groups of Participants

Age Group	Number	%
18-21	362	73.1
22-24	70	14.1
25-above	63	12.7

Participants were asked if they had taken a computer software applications type class after high school. They reported that 167 of the 494 (34%) had taken a computer software applications class after high school. Three hundred twenty-seven (66%) reported they had not taken a computer software applications class after high school. On hundred eighty-nine (38%) of the respondents reported that they were currently at the junior, senior, or graduate level in college.

Participants were asked to report the skill level they perceived that they possessed at the beginning of the introductory computer applications course. The table 3 reports their responses.

Thirty-one percent of the participants perceived that they possessed word processing skills at the "expert" level. Sixty-two percent perceived that they possessed "intermediate" word processing skills. Therefore, over 92% of all the participants perceived their word processing skills to be higher than "novice."

Table 3

Perceived Skill Level of Participants

	Novice		Intermediate		Expert	
Application	No.	%	No.	%	No.	%
Word Processing	38	7.7	305	61.6	152	30.7
Spreadsheet	199	39.3	283	55.9	24	4.7
Database	359	70.5	138	27.1	12	2.4
Presentation Software	317	61.2	158	30.5	43	8.3
Internet Software	45	9.1	296	59.4	157	31.5
Desktop Publishing	293	58.8	171	34.3	34	6.8

When focussing on spreadsheet skills, 5% of the participants reported that they perceived their skill level to be in the "expert" range. Fifty-six percent perceived that they possessed an "intermediate" spreadsheet skill level, and 39% percent perceived they had a "novice" spreadsheet skill level.

Two percent of the participants perceived their database skills to be in the "expert" range; 27% perceived their database skills to be "intermediate." Seventy-one percent consider themselves to have novice skills concerning databases.

Eight percent of the respondents perceived that they possessed an "expert" skill level with presentation software. Thirty-one percent perceived that they possessed an "intermediate" presentation software skill level. Sixty-one percent of the participants perceived their presentation software skills to be at the "novice" level.

When asked about Internet software skills, 32% of the respondents reported that they perceived their skills to be at the "expert" level, and 59% perceived their skills to be at the "intermediate" level. Only 9% reported that their skills were at the "novice" level when using Internet software.

Seven percent of the respondents perceived their desktop publishing software skills were at the "expert" level. Thirty-four percent perceived that they were at the "intermediate" desktop publishing software skill level; 59% perceived their desktop publishing software skills were at the "novice" level.

Conclusions

Assuming the data collected is reliable, valid, and representative of collegiate students, the following conclusions are drawn. There are vast differences among collegiate students perceived skill levels in introductory computer software applications courses. The majority (greater then 50%) of the students reported having an intermediate or expert level of skills in three different computer software applications. Ninety-three percent of the students perceived their word processing skills to be at the intermediate level or higher. Ninety-one percent of the students perceived their Internet software skills to be at the intermediate level or higher. And, 61% of the students perceived their spreadsheet skills to be at the intermediate level or higher.

The majority (greater than 50%) of the students reported their skill levels to be at the novice level in three different computer software applications. Seventy-one percent perceived their database skills to be at the novice level. Sixty-one percent perceived they possessed novice skills with presentation software applications. In addition, 59% perceived they possess novice-level desktop publishing software skills.

Approximately one-third (34%) of the students reported they had taken another computer software applications course after high school. The remaining 66% reported they had not taken another computer course after high school.

Over one-third (38%) of the students reported that they were currently at a grade level higher than "sophomore" in college. Thirty-four percent were freshman, 28% were sophomores, 20% were juniors, 17% were seniors, and less than 1% was graduates. The students were predominantly 18-24 years of age (87%).

Implications for Practice

Based on the findings and conclusions of the study, the following implications for practice in college level computer software applications classrooms are offered:

1. The conclusions of this study indicate that vast differences are present in the skill levels of students entering college computer software applications courses. One implication of this conclusion is that at any given point of instruction, teachers are delivering new instruction to some students and re-teaching concepts and skills to others. The classroom teacher must decide whether it is valuable to re-teach students with high skill levels or if new advanced instruction and learning activities should be taught. If the classroom teacher decides that new advanced instruction should be delivered to students with high skill levels, appropriate instructional/learning methods and strategies should be developed and implemented.

2. The skill levels reported in this study are perceived skill levels that participants reported they possessed. Additional studies should be conducted to determine the actual (not perceived) skill levels students possess when entering introduction to computer type courses at the college level. Administering valid and reliable content and skill-based pretests would offer computer software applications instructors valuable information concerning the skill levels their students possess. After determining the skill levels of students in a computer software applications class, several options should be provided that would offer instruction at different skill levels and allow students at different or individual rates.

Self-paced instruction would allow students who are advanced in one or more applications to spend less time on the concepts and skills that they have already mastered and to spend more time on the concepts and skills in which they are less adept. This teaching methodology requires a large amount of preparation time on the part of the instructor who must offer a very broad range of instruction to accommodate the different skill levels of their students. Teaching materials must be obtained or developed with clear instructions and expectations. Another challenge for instructors is determining the types of measurement and evaluation activities. Students who begin the class at the novice level probably will not match the content and skill levels obtained by students who begin at higher levels. If the course is designed to be introductory, novice students should not be penalized for beginning with fewer concepts and skills.

Using pretest results to place students in two or more groups can allow teachers to deliver instruction at different levels. This method of delivery resembles teaching two or more micro-classes. Each group will require their own preparation for delivery, skills practice, concept development, and evaluation strategies.

Allowing students with advanced skills to serve as mentors or coaches can prove to be an effective method for teaching and assisting students with novice skill levels. Students often respond positively from instructions offered by their peers, rather than by their teachers. The benefits obtained by students-mentors are that they are less likely to become bored with the class and it is a good way to learn something by helping teach it to someone else.

Computer-based instructional programs offer the advantage of self-paced instruction. Many of these programs allow students to begin at different skill levels and allow them to progress at their individual rates. Frequently, computer-based instructional programs incorporate evaluation and implement techniques for re-teaching the concepts and skills that students have not mastered. Instructors of courses that utilize computer-based instruction will need to be familiar with the capabilities of the program and the concepts and skills that the program teaches. Instructors should use time management strategies skillfully to incorporate the specific material in which the computer-based instructional program is deficient.

3. Instructors should consider the differences of their students' skill levels (both perceived and actual) when making decisions about the time allotted to each type of computer applications. Frequently, instructors allow equal amounts of time for each type of application. The findings of the study suggest that the applications of desktop publishing, presentation software, and databases require more instructional time than word processing, spreadsheets, and Internet skills.

4. To reduce redundancies in students ' programs of study, instructors should consider implementing "test out" procedures which will allow students who demonstrate the competencies covered by the course to receive credit without repeating instruction on the concepts and skills that students already possess.

5. Measures should be taken to ensure that introductory computer software applications classes are taken early in college students' programs of study. Designating the "introduction to computer software applications" type courses as prerequisites to those courses in which students are expected to use computer software to solve business problems and also numbering them as freshman or sophomore level courses may encourage students to take them early in their program.

6. There is no substitute for effective advisement. Therefore, advisors should encourage students to take introductory computer software applications courses as early as possible to facilitate their acquisition of in-depth computer applications concepts and skills and to complement other course work that computer knowledge and skills might enhance.

References

Alexander, W., & Echternacht, L. (1990). Developing business skills needed in the 1990's. In O'Neil, S. L. (Ed.), National Business Education Yearbook (No. 28, pp. 43-54). Reston, VA: National Business Education Association.

Coley, C. R. & Engel, P. K. (1997). Computers and classrooms: The status of technology in U.S. schools. Policy Information Report Information Center. Educational Testing Service. (ERIC Document Reproduction Service 412 893). 13.

Daggett, W. & Jaffarian, R. (1990). Business education in the 1990's. In O'Neil, S. L. (Ed.), National Business Education Yearbook (No. 28, pp. 166-171). Reston, VA: National Business Education Association.

Hall, J. C. (1990). A business education perspective: Past . . . present . . . future. In O'Neil, S. L. (Ed.), National Business Education Yearbook (No. 28, pp. 1-11). Reston, VA: National Business Education Association.

Lundgren, C. A., Lundgren, T. D., & Mundrake, G. A. (1995). Teaching computer applications. Little Rock, AR: Delta Pi Epsilon.

McEwen, B. C. (1996). Teaching microcomputer software skills. Business Education Forum, 50, (4), 15-20.

Ostheimer, Sondra (1999). Desktop publishing: Relevant assignments mean better results. Business Education Forum, 53, (4), 46-48.

Policies Commission for Business and Economic Education. (1993). This we believe about the role of business education in technology. (Statement 53). South-Western Publishing Co.

Ravitch, Diane (1998). The great technology mania. Forbes, 161, (6), 134.

Human Resource Managers' Perception of Nonverbal Communication

Donald English
Janet Walker
Edgar Manton
Department of General Business and Systems Management
Texas A&M University – Commerce
Commerce TX

Abstract

The purpose of this study was to determine which nonverbal topics and methods human resource managers believe are important. A questionnaire was developed and mailed to human resource managers at the 200 largest companies in the Dallas/Ft. Worth area.

One hundred percent of the respondents reported that "eye contact" was important, while 96 percent reported that "facial expression" was important. The respondents of this study reported that "role playing" was the most valuable method for teaching nonverbal.

How important is nonverbal communication? Studies suggest that 65 to 90 percent of communication is transmitted nonverbally. If this is true, then business managers should be placing emphasis on nonverbal communication. What do human resource managers believe are the most important nonverbal topics in the workplace and the most appropriate methods for teaching these topics? Nonverbal consists of: body language, tone of voice, gestures, clothes we wear, physical appearance, space/territory, facial expressions, first impressions, and posture. All of the nonverbal signals communicate a message to those around us.

Purpose and Objectives of the Study

The purpose of this study was to determine which nonverbal topics and methods human resource managers believe are important. Specifically the objectives of this study are:

1. to determine the age and sex of respondents.
2. to determine the value of nonverbal as perceived by human resource managers.
3. to determine if companies are providing training in nonverbal.
4. to determine the nonverbal topics that are important in the workplace.
5. to determine the most appropriate methods for teaching nonverbal.

BEST COPY AVAILABLE

Related Literature

Nonverbal communication is a relatively new field of study and is defined as "everything but the words used to communicate." "Nonverbal communication" is just one label. Others include "body language," "kinesics," "paralanguage," and "proxemics."

Mary Ellen Guffey defines nonverbal communication as including "all written and unspoken messages, both intentional and unintentional." (Guffey, p. 50) Researchers have found that "an astonishing 93 per cent of the meaning of a message comes from nonverbal cues."(Guffey, p. 50) "Only seven per cent ...of a message comes from the words spoken."(Guffey, p. 50)

A recently published book, Nonverbal Communications, Forms and Functions by Peter A. Anderson is based on "current theory and research in the field of nonverbal communication." Anderson states that "most researchers believe that nonverbal communication is considerably more important" (Anderson, p. 1) than verbal communication. Although researchers may disagree with the percentage of a message that is carried nonverbally "numerous studies show that all the various aspects of nonverbal communication—body movements, interpersonal distance, touch, facial expressions, and all other components ... of nonverbal communication ...are very important."(Anderson, p. 2)

Anderson defines nonverbal communication as "includes all communication other than language." (Anderson, p. 2) Nonverbal communication is a part of the broader category of communications And "verbal communication and nonverbal communication...exist side by side as two human processes that are part of the same system."(Anderson, p. 2)

The coverage of nonverbal communication in the business communication textbooks has increased over the past two decades.

Business Communications by Himstreet and Baty published in 1973 and used as a text in business communication courses devoted a few lines to nonverbal communication. They reported that "facial expressions, gestures and other bodily actions can tell when a person is pleased or upset." (Himstreet and Baty, p. 10) Also, listeners can recognize when "a person's speech does not convey his true intentions." (Himstreet and Baty, p. 10)

Recently published business communication books devote much more space to nonverbal communication. A recently published book Lesikar's Basic Business Communication by Lesikar, Pettit and Flatley (1999) devoted approximately three and one-half pages to nonverbal communication and included the nature of nonverbal communication, types of nonverbal communication which includes

body language, space, time, paralanguage, and other types of nonverbal communication.(Lesekar, Pettit and Flatley p. 434-437)

Lehman and Dufrene's book Himstreet and Baty's Business Communication, 1999, included nonverbal communication, metacommunication, kinesic communication, overcoming barriers created by nonverbal messages, and cultural differences in nonverbal messages. (Lehman and DuFrene p. 49-52)

Even popular magazines such as McCalls, Readers Digest, Good Housekeeping, Mademoiselle, Tennis and Career World include nonverbal communication articles.

The February, 1998 Readers Digest in an article entitled "The Healing Power of Touch" records that touch is our "most intimate and most powerful form of communication." George Colt further states that "a simple touch—a hand on a shoulder, an arm around a waist—can reduce the heart rate and lower blood pressure." "Even people in deep comas may show changes in their heart rates when their hands are held. Positive, nuturing touch appears to stimulate the release of endorphins, the body's natural pain suppressors." (Colt, p. 89)

In an article in Tennis, May, 1993, Jim Loehr discusses how nonverbal behavior on the tennis court can communicate win or lose. He says "body language may be the most underused weapon in tennis. With the right body language, you can summon the emotions that help players perform at their best, such as confidence and relaxation." (Loehr, p. 118)

An article in 1994 issue of Career World by Pamela Kramer says "It's true what you say in an interview has a lot to do with whether or not you land a new job. But what you don't say tells a potential employer even more." (Kramer, p. 14) No matter what you say, " the interviewer will have a hard time believing your words when your "body language" is screaming the complete opposite." (Kramer, p. 14)

Dianne Hales' article, "The Secret Language of Success" in Reader's Digest, January 1994 contains information about nonverbal communication in the family and on the job. The main theme of nonverbal communication on the job "centers on the theme: power." (Hales, p. 166) "...humans have their own way of signaling who is in charge."(Hales, p. 166) Ms. Hales discusses how power and lack of power is communicated on the job. Also, she discusses how to "look for discrepancies in what you are seeing and what you are hearing."(Hales, p. 166) She emphasizes the importance of working on the handshake and establishing good eye contact.(Hales, p. 165-169)

Karen Berg, CEO of New York City—based CommCore which specializes in communication training, wrote an article for McCalls, June 1993, entitled "How to Get What you Want." Karen writes that "the majority of interpersonal

communication occurs through body language."(Berg, p. 90) She includes pictures which includes recommended body language that will get people to tell a secret, will get the job, will keep pickpockets away, and will get people to ask opinions at a board meeting. (Berg, p. 90-92)

In "How to Tell When a Person is Lying", Good Housekeeping, June, 1994, D. Glenn Foster and Mary Marshall teach how to read the subtle nonverbal cues. When adults can't express their real feelings "we have learned to "behave" ourselves and how to hide our true feelings."(Foster and Marshall, p. 46) The article "goes through a set of signals that a husband sends out when the wife suspects he is being unfaithful."(Foster and Marshall, p. 46)

The July, 1995 issue of Mademoiselle contains an article entitled "Do you Give Good Body Language." by Alicia Rodriguez. A body language self-discovery test (a test of your visual vocabulary) is included. Photographs are shown of people at a party and at the office. Then questions concerning nonverbal communications are asked to determine the reader's nonverbal savy. The answers and discussion are given. (Rodriguez, p. 75-77)

Methodology

A questionnaire was developed and mailed to the human resource managers at the 200 largest publicly held companies in the Dallas/Ft. Worth area. The questionnaire, cover letter and stamped return envelope were mailed in September 7, 1999. After three weeks, a follow-up letter was sent to the nonrespondents. A total of 55 questionnaires were returned with 51 questionnaires being usable.

Findings

Shown in Table 1 is the sex of the respondents.

Table 1

Sex of Respondents

	Number	**Percent**
Male	14	27
Female	37	73
Total	51	100

Seventy-three percent of the respondents were female.

Table 2 reveals the age categories of the respondents.

Table 2

Age Categories of Respondents

Age	Number	Percent
Under30	7	14
31-40	13	25
41-50	17	33
51-60	13	25
Over 60	1	2
Total Responses	51	99

As shown in Table 2, a majority of the respondents were over 40 years of age. Respondents were asked how valuable nonverbal was in the workplace. The results are shown in Table 3.

Table 3

How Valuable is Nonverbal?

Response	Number	Percent
Very Valuable	20	39
Valuable	29	57
Little Value	2	4
No Value	0	0
TOTAL	51	100

Ninety-six percent of the respondents believed that nonverbal was "very valuable" or "valuable."

Respondents were asked if they believed that managers' were knowledgeable in the use of nonverbal. The results are shown below.

Table 4

Are Managers Knowledgeable in use of Nonverbal?

Response	Number	Percent
Yes	10	20
No	38	74
No Opinion	3	6
Total	51	100

As can be seen in Table 4, human resources managers do not believe managers are knowledgeable in the use of nonverbal.

Respondents were asked if their companies provided training in nonverbal. The results are shown in table 5.

Table 5

Does Company Provide Training in Nonverbal?

Response	Number	Percent
Yes	6	12
No	44	86
Don't Know	1	2
Total	51	100

Eighty-six percent of the respondents indicated that their company does not provide training nonverbal.

"Have you had formal training in nonverbal?" was asked of the respondents. The results are shown in table 6.

Table 6

Have you Had Formal Training in Nonverbal

Response	Number	Percent
Yes	28	55
No	23	45
Total	51	100

Fifty-five percent of the respondents have had formal training in nonverbal.

Respondent were asked to indicate what nonverbal topics were important in the workplace. The results are shown below.

Table 7

What Nonverbal Topics are Important in the Workplace?

Response	Number	Percent
Eye contact	51	100
Facial expressions	49	96
Tone of voice	47	92
Smiling	46	90
Hand shake	45	88
Making a good first impression	44	86
Personal appearance	44	86
Posture	43	84
Attitude about time	41	80
Dress	38	75
Gestural activities	38	75
Nodding head	34	67
Vocal qualities	32	63
Leaning away	29	57
Slouching	28	55
Vocal characteristics	27	53
Vocal segregate	27	53

Touching	25	49
Spatial relationships	25	49
Leaning toward	24	47
Meaning of colors	12	24

"Eye contact" and "facial expressions" were the two topics most frequently mentioned.

What are the most appropriate methods to use in teaching nonverbal. The responses are shown below.

Table 8

Value of Various Teaching Methods

Very Valuable = 4; Valuable = 3; Little value = 2; No value = 0

(Number responding)

Method	Very Valuable	Valuable	Little Value	No Value	Weighted Average
Role playing	28	15	4	1	3.45
Audio/Visual Material	4	24	40	1	3.20
Discussion	16	30	4	1	3.20
Group Projects	13	23	11	1	3.00
Guest Speakers	9	30	8	1	2.98
Case Studies	8	27	14	0	2.88
Current Events	9	19	14	2	2.80
Panel Discussion	12	17	15	4	2.77
Lectures	4	24	20	1	2.63
Debates	5	19	18	6	2.48
Textbook Reading	2	15	24	5	2.22
Student Term Paper	4	9	24	8	1.76

"Role playing," "audio/visual material" and "group projects" were the method chosen most often by the respondents.

Conclusions

Based on the findings of this study the following conclusions were drawn:

1. A majority of the respondents were female.
2. Sixty percent of the respondents were over 40 years of age.
3. Ninety-six percent of the respondents rated nonverbal as either "very valuable" or "valuable" in the workplace.

4. Only 20 percent of the human resources managers surveyed believed that managers were knowledgeable in the use of nonverbal.
5. Twelve percent of the companies surveyed provided training in nonverbal.
6. Of those human resources managers responding, 55 percent have had formal training in nonverbal.
7. One hundred percent of the respondents believed that "eye contact" was important in the workplace, while only 24 percent believed that the "meaning of colors" was important.
8. "Role playing" was the method deemed most valuable for teaching nonverbal. "Student term papers" was considered least important.

Implications and Recommendations

The information contained in this study should be beneficial to business managers. The nonverbal topics that human resources managers indicated were important in the workplace might prove useful to managers. The value placed on various teaching methods might prove beneficial to companies considering nonverbal training for managers.

It appears that business managers need training in nonverbal. Companies should consider a training program. According to respondents, 74 percent of managers are not knowledgeable in nonverbal.

References

Anderson, Peter A. (1999). Nonverbal Communication: Forms and Functions.
Mountain View, CA: Mayfield Publishing Co.

Berg, Karen. (June 1993) How to get what you want. McCall's, 90-92.

Colt, George Howe. (February, 1998). The healing power of touch. Reader's Digest,
86-90.

Foster, D. Glenn and Mary Marshall. (June, 1994) How to tell when a person is lying.
Good Housekeeping, 46-48.

Hales, Dianne. (January, 1994). The secret language of success. Reader's Digest,
165-166.

Himstreet, William C. and Wayne Murlin Baty. (1973) Business Communications:
Principles and Methods. 4th ed. Belmont, CA: Wadsworth Publishing Co., Inc.

Kramer, Pamela. (Nov/Dec, 1994) All the right moves. Career World. 23, 14-16.

Lehman, Carol M. and Debbie D. Dufrene. (1999). Himstreet and Baty's Business Communication. 12th ed. Cincinnati, OH: South-western College Publishing.

Lesikar, Raymond V., John D. Pettit, Jr., and Marie E. Flatley. (1999). Lesikar's Basic Business Communication. 8th ed. Boston, MA: Irwin McGraw-Hill.

Loehr, Jim. (May, 1993) How to look like a champion. Tennis, 118-119.

Rodriguez, Alicia (1995). Do you give good body language. Mademoiselle, 101, 75-77.

Learning Plateaus in Student Skill Development: Perceptions of Court Reporting Instructors

Joyce L. Sheets and Marcia A. Anderson
Southern Illinois University Carbondale

Abstract

Individuals designated as Certified Reporting Instructors (CRIs) by the National Court Reporters Association were asked whether speed plateaus exist, the speeds at which these plateaus occur, the duration of these plateaus, and the type of dictation materials on which these plateaus occur. Any statistically significant interaction or relationship among various demographic elements and the CRIs' perceptions were reported.

CRIs overwhelmingly believe that speed plateaus exist and that students may encounter more than one speed plateau before completing their program of study. First plateaus are most likely to occur at 160-180 wpm, while second plateaus tend to occur at 180-200 wpm. Two-voice material is most likely to be involved in both first and second plateaus. The typical duration of a first plateau is 20-26 weeks.

Introduction

Making a verbatim record using a shorthand machine, the requisite competency of court reporters, requires many of the same skills needed by manual shorthand reporters: knowledge of shorthand theory, ability to write accurately at very high speeds, extensive vocabulary, exemplary English foundation, knowledge of courtroom procedures, and a consistent method for translating accurately the written shorthand into a transcript that can be read by all. Of these areas of knowledge and skill, the most difficult to develop consistently has been speed of writing, whether manually or by shorthand machine.

A widespread phenomenon called plateaus or plateauing often occurs as learners of psychomotor skills strive to perform in a highly skilled way. Researchers have described this phenomenon in various ways. Magill (1993) said goal achievement in the physical education area was sporadic rather than smoothly proceeding from novice to skilled performer.

Travers (1982) cited the term "learning curve" used by Bryan and Harter (1897) to illustrate the rate at which learning occurred, with the slowed-up portion being

called a plateau. West (1983) discussed plateaus in keyboarding as periods of little or no apparent progress. He perceived plateaus as a motivational phenomenon caused by (a) declining motivation; (b) continued use of a no-longer appropriate work method; (c) sudden rather than gradual increase in task difficulty; and (d) persistent weaknesses the student cannot eliminate.

Belief in the existence of plateaus was not universal. Despite Bryan and Harter's (1897) early use of the term, Keller (1958) labeled the phenomenon the "phantom plateau." Travers (1982) agreed that it was hard to find convincing evidence that plateaus existed except as artifacts.

If court reporting students reach a plateau, they do so when they successfully attain the skills necessary to write shorthand from dictation and accurately transcribe that dictation into English at one speed but then cannot advance beyond the attained speed. Carruthers, Porter, & Vaughn (1990) expressed the belief that many court reporting students will plateau at one or more speeds before completing the program of study. Being able to give prospective court reporting students a realistic picture of the nature of speed plateaus and being able to give teachers helpful methods for dealing with students on speed plateaus would remove some of the fear and doubt suffered by both parties to the speed plateaus which may occur in student skill development.

Objectives of the Study

This study sought to determine perceptions of Certified Reporting Instructors (CRIs) regarding the nature of speed plateaus among court reporting students. Specific research questions included: (a) whether court reporting students experience speed plateaus, (b) factors contributing to speed plateaus if they do occur, and (c) any relationships among CRIs' perceptions regarding the nature of speed plateaus and various instructor and instructional elements.

Literature Review

Much research has been conducted in cognitive and psychomotor skill development with sometimes conflicting results. A common thread running through the literature is the importance of focusing attention for learning to occur.

It is identified as being of the utmost importance in performing any difficult cognitive task (Broadbent, 1971).

In simultaneous translation, it is common for the interpreter to focus attention toward verbal input to both ears, whereas monolinguals tend to use one ear to focus input and attention (Kraushaar & Lambert, 1987). Reaction time – or being able to minimize reaction time – would give a large advantage to a competitor (Schmidt, 1991) or to a court reporting student building speed in recording dictation. Having a number of stimulus-response alternatives generally increases reaction time (Schmidt, 1991).

Hick's Law said that the relationship between choice reaction time and the logarithm of the number of stimulus-response alternatives is linear. Winstein and Schmidt (1990) considered this to be one of the most important laws of human performance. Extending Hick's Law to court reporting, it would seem likely, then, that use of a realtime machine shorthand theory would affect speed development, because of the alternate responses to a single sound depending on the exact translation desired (e.g., there, their, they're).

Personal communications with nationally known court reporting instructors confirmed the existence of speed plateaus in skill development. Moody (personal communication, April, 1997) expressed a belief that those students who drop out of court reporting studies are generally on a speed plateau at the time they quit the major. Hayes (personal communication, April, 1997) also expressed the belief that plateaus are barriers to student completion of the court reporting program, although not all students experiencing plateaus drop out of the program.

Research Procedure

Those individuals on the National Court Reporters Association registry as Certified Reporting Instructors were the target population. As of October 1, 1997, that number totaled 300.

Since the literature review produced no definition of a speed plateau in court reporting skill development, a definition was developed using a delphi technique with 55 subjects at a seminar session of the National Court Reporters Association Teachers' Workshop in October, 1997. That definition was used as the basis for the researcher-developed questionnaire which was pilot tested with 26 CRI candidates. Evaluation of the instrument by the 26 CRI candidates resulted in a final version of the instrument that was mailed to all CRIs on the NCRA registry as of October 1, 1997. The October 1, 1997, date was chosen to ensure there was no contamination of the population by anyone becoming a CRI after the

orientation session at which the instrument was pilot tested.
The revised research instrument and cover letter/reply envelope were mailed to the 300 CRIs in late November, 1997. A follow-up mailing was conducted in January 1998. Data from the 175 (58.3%) usable instruments were transferred to a ScanTron answer sheet for each respondent. Spot checking was used to verify accuracy. These answer sheets were optically read into a mainframe computer for statistical analysis using the Statistical Package for the Social Sciences (SPSS). Frequencies, percentages, measures of central tendency, Pearson correlations, and Pearson chi-square were used in analysis as appropriate to the information sought.

Respondent Data and Research Question Results

Respondents were primarily female (151 or 87.8%), and the majority (133, 76.5%) had been CRIs from 3-6 years. One-third (59, 33.7%) had 6-10 years experience teaching court reporting, and another 24% (42) had taught court reporting 16-20 years. The majority of respondents (91 or 52%) had worked as court reporters, although 43.4% (76) of respondents indicated they held no court reporting certifications other than CRI.

A survey of academic background found that 103 (58.9%) of respondents had a baccalaureate degree, but another 41 (23.4%) had no degree. In addition to checking all degrees earned, CRIs were asked to list the major program of study for each degree. A portion of the CRIs marked more than one associate degree, while some CRIs had earned more than one baccalaureate degree. Some CRIs checked master's degree without indicating that a baccalaureate degree had been earned.

Table 1
Respondents' Academic Backgrounds

Degree	Number	Percentage
None	41	23.4%
Associate	46	26.3%
Baccalaureate	103	58.9%
Master's	56	32.0%
Doctorate	6	3.4%

Note. Respondents were asked to mark each degree they had earned, so some marked multiple degrees.

Forty percent (20) of those earning an associate degree earned that degree in court reporting. The next most frequent major cited for an associate degree was the category of "No Major" indicating that 9 respondents did not list the major program of study for the degree earned. Fourteen percent (7) of the remainder earned an associate degree in business. In descending order of frequency are listed the other majors marked by those earning the associate degree. They include: secretarial (4), teaching (3), office systems (2), English (1), history (1), legal assistant (1), liberal arts (1), and paralegal (1).

Those responding had earned 110 bachelor of arts or bachelor of science degrees. Thirty-nine percent had an education major, while 14.5% (16) studied business administration. The next most frequent response was English (11 CRIs, 10%) followed by "No Major" for 10 CRIs (9.1%), with psychology (4 CRIs, 3.6%), communications (3 CRIs, 2.7%) and history (3 CRIs, 2.7%). Music, sociology, and Spanish were majors of 2 CRIs each (1.8% each). The remaining majors were each listed by one CRI (.9%). They included AAS (not known to the researcher), administrative science, anthropology, behavioral science, computer science, curriculum, economics, French, German, liberal arts, MIS (management information systems), secretarial science, social administration, and speech therapy.

Education (43 CRIs, 81.1%) was the predominant major of CRIs earning a master's degree, while 3 (5.7%) CRIs marked business management. One CRI (1.9%) did not indicate a major course of study for the master's degree, and 1 CRI (1.9%) marked each of the following majors: English, health, marketing, music, psychology, and theology.

A total of 6 CRIs had earned a doctorate. Business education was the major focus for 2 CRIs (33.3%), with 1 CRI (16.7%) choosing each of the following majors: higher education, human resources, instructional leadership, and professional development. In analyzing data for any relationship between perceptions of speed plateaus and the academic background of the respondents, a Pearson correlation was used. A statistically significant relationship was identified between those CRIs holding a doctorate degree and the 140-160 wpm speed category (Table 2). The reader should be reminded, however, that only 6 of 175 respondents possessed a doctoral degree. No other academic background was statistically significant.

Table 2

Statistically Significant Pearson Correlation Between Speed Plateau Perceptions and Academic Background

Degree	Speed Category	Pearson Correlation	p
Doctorate	140-160 wpm (1st)	.329	<.05

Two-thirds (110 or 66.3%) taught in NCRA-approved programs. The proprietary/career type of education institution employed 63 (38.2%) of CRIs responding.

Table 3

Type of Educational Institution Where CRIs Teach (n = 166)

Institution	Frequency	Valid Percent
Proprietary/Career	63	38.2%
Community College	53	32.1%
Vocational-Technical School	23	13.9%
Four-year College/University	14	8.5%
Private Junior College	12	7.3%
Total	166	100.0%

CRIs reported strong perceptions (159; 96.4%) that speed plateaus exist in court reporting education. Respondents (134; 94.4%) also believed that students experiencing one speed plateau were likely to encounter another one before completion of their program of study. To the survey item dealing with the percentage of court reporting students likely to encounter a speed plateau, CRIs indicated as many as 71.2% of students may experience a plateau. Despite variability about the mean (SD = 24.76), respondents indicated that almost three-fourths of court reporting students encounter a speed plateau.

In the perceptions of CRIs, are there specific speed levels and/or types of dictation material on which plateaus occur during the enrollment of court reporting students? Only those respondents indicating they had experience with students in machine shorthand who were on a plateau were asked their perceptions of speed levels and dictation material. A total of 159 (96.4%) of CRIs responding to these items indicated they had experience with students in machine shorthand who were on a speed plateau.

Respondents ranked the speeds from most frequent speed plateau (a ranking of 1) to least frequent speed plateau (a ranking of 8) to show the speed at which students were working when the first plateau occurred. The lower the mean, the greater the likelihood a plateau would occur at that speed if a student were to experience a plateau.

The speed category of 160-180 wpm was ranked by 123 CRIs ($\underline{M}$ = 2.49) as being a speed at which court reporting students were most likely to experience a plateau. However, means for 140-160 wpm ($\underline{M}$ = 2.57) and 180-200 wpm ($\underline{M}$ = 2.63) followed closely behind.

In Table 4, the speed category is followed by the number selecting that particular speed category at any rank (1 = most frequent to 8 = least frequent). For example, 64 respondents selected the less than 100 wpm speed category with a rank somewhere between 1 and 8. The mean of 6.81 for that speed category indicates that it was a speed at which plateaus occurred infrequently (8 = least frequent).

Table 4
Mean Rank of Speed at Which First Speed Plateaus Occur

Speed Category	N	Mean	SD
Less than 100 wpm	64	6.81	1.82
100-120 wpm	78	5.24	2.16
120-140 wpm	98	3.69	1.83
140-160 wpm	115	2.57	1.55
160-180 wpm	123	2.49	1.47
180-200 wpm	117	2.63	1.25
200-220 wpm	105	3.32	1.52
More than 220 wpm	53	3.55	2.09

Respondents were asked if they had encountered students experiencing more than one speed plateau. If so, they ranked the speeds at which the second plateau occurred from most frequent (No. 1) to least frequent (No. 8). Those responses given here permit comparisons of first-plateau responses at particular speeds with the responses given for second-plateau responses.

It would seem logical that if the CRIs were ranking the second speed plateau encountered by a court reporting student, the speed at which the second plateau was encountered should be higher than the first speed plateau. The lowest mean was for the 180-200 wpm speed category (102 respondents) with 2.11 and a standard deviation of 1.30. Interestingly, the next lowest mean was for the 160-180 wpm speed category, with a mean of 2.46 and a standard deviation of 1.29.

The reader is reminded that the number ranking a particular speed category is reported, as well as the mean for that category and the standard deviation of the respondents' answers.

Table 5

Mean Rank of Speed at Which Second Speed Plateaus Occur

Speed Category	N	Mean	SD
Less than 100 wpm	43	7.12	1.56
100-120 wpm	49	5.82	1.82
120-140 wpm	55	4.31	1.95
140-160 wpm	73	3.14	1.70
160-180 wpm	74	2.46	1.29
180-200 wpm	102	2.11	1.30
200-220 wpm	83	2.69	1.39
More than 220 wpm	49	2.59	1.58

The following responses were given to indicate the type of dictation material on which the first speed plateau occurred: literary, jury charge, two-voice, other. The Other type of dictation material may be such types as business letter or four-voice testimony. Two-voice dictation material was identified by the highest number of respondents (101 or 57.7%).

Table 6

Type of Dictation Material on Which First Speed Plateau Occurred

Material	Frequency	Valid Percent
Literary	83	47.4
Jury Charge	34	19.4
Two-Voice	101	57.7
Other	24	13.7

Note. Respondents could check more than one category; therefore, the total percentages add up to more than 100%.

In response to the item asking on what type of material any second speed plateau occurred, two-voice dictation material was again indicated by 79 (45.1%) respondents.

Table 7

Type of Dictation Material on Which Second Speed Plateau Occurred

Material	Frequency	Valid Percent
Literary	54	30.9
Jury Charge	20	11.4
Two-Voice	79	45.1
Other	29	16.6

Note. Respondents could check more than one category; therefore, the total percentages add up to more than 100%.

If so many students of court reporting are to encounter speed plateaus, what can they expect as the typical duration of any plateaus? Because the definition of a speed plateau included a duration of 13-19 weeks without passing a speed test, possible responses for speed plateau categories started at 20-26 weeks. The highest percentage (77 or 44%) responding to this item indicated the duration of a typical first speed plateau was 20-26 weeks, with 48 (27.4%) selecting 26-52 weeks for the typical duration. It should be noted, however, that some

respondents checked more than one category; therefore, the total percentages added up to more than 100% for the first speed plateau.

For the typical duration of a second speed plateau, 38 CRIs (24.4%) indicated "Don't Know." At the same time, 33 (21.2%) said students encountering a second speed plateau could expect that experience to continue for 13-19 weeks.

The existence of speed plateaus, the speed level(s) at which they occur, the dictation material on which they occur, and their typical duration all composed the CRIs perceptions of the nature of speed plateaus. With these perceptions denoted, various demographic data were analyzed for any existing relationships or dependencies with CRIs' perceptions.

Granted that respondents perceived speed plateaus as almost a fact of life in the psychomotor skill of court reporting, what factors do they believe contribute to these speed plateaus? CRIs were asked to use a Likert-type scale to rate a number of factors relating to court reporting students that may contribute to speed plateaus. Table 9 shows the frequencies of each factor. The factor called Other was rated by 26 respondents as contributing to speed plateaus, while Lack of Discipline was rated by 142 respondents as being a contributing factor.

On that scale, 5 indicated a major contributing factor, 4 was somewhat of a contributing factor, 3 was no opinion on this factor, a 2 was a minimal contributing factor, and 1 was not a contributing factor. Combining Rating 5 (major contributor) and Rating 4 (somewhat of a contributor), respondents indicated that outside responsibilities (91.7%) and lack of discipline (91.5%) were heavy contributors to speed plateaus. Additional contributing factors of importance as perceived by CRIs included Goals (75.7%), Theory (69.6%), Financial (68.6%), English (66.2%), and Pressure (59.8%). Attitude, attendance, and poor practice habits were among factors most often cited by respondents as part of the Other factors contributing to speed plateaus.

Table 8

Frequencies of Factors Contributing to Student Speed Plateaus

	Rating 5		Rating 4		Rating 3		Rating 2		Rating 1	
Factor	n	%	n	%	n	%	n	%	n	%
Discipline	76	53.5%	54	38.0%	1	0.7%	9	6.3%	2	1.4%
Responsibilities	60	42.0%	71	49.7%	3	2.1%	8	5.6%	1	0.7%
Theory	42	31.1%	52	38.5%	9	6.7%	27	20.0%	5	3.7%
English Skill	41	29.5%	51	36.7%	14	10.1%	27	4.3%	6	4.3%
Goals	38	27.1%	68	48.6%	10	7.1%	17	12.1%	7	5.0%
Pressure	30	22.7%	49	37.1%	11	8.3%	30	22.7%	12	9.5%
Financial	28	20.4%	66	48.2%	11	8.0%	20	14.6%	12	8.8%
Machine	13	10.0%	13	10.0%	37	38.5%	27	20.8%	40	30.8%
Other	21	80.8%	3	11.5%	–	–	–	–	2	7.5%
Age	8	6.1%	46	34.8%	14	10.6%	37	28.0%	27	20.5%
Instruction	8	6.1%	12	9.2%	28	21.4%	28	21.4%	55	42.0%
Physical	2	1.5%	18	13.8%	21	16.2%	42	32.3%	47	36.2%

Court reporting programs approved by the National Court Reporters Association (NCRA) must use a theory that has been recognized by NCRA as being a realtime machine shorthand theory; that is, one in which each steno outline represents only one possible definition. Thus the words there, their, and they're must each be written differently. There were seven theories accepted by NCRA at the time this research was conducted. In alphabetical order, these theories were Digitext; Phoenix; REALWRITE; Roberts, Walsh, Gonzalez; StenEd; Stenograph; StarTran. An Other blank was provided for CRIs to respond if the theory used in their school (which was possible if their program was not an NCRA-approved one) was not provided as one of the choices. Frequencies are reported in Table 9.

Table 9

Machine Shorthand Theory Taught in Respondents' Programs (n = 153)

Theory Taught	Frequency	Percent
StenEd	81	52.9%
Stenograph	31	20.3%
Roberts, Walsh, Gonzalez	17	11.1%
Digitext	12	7.8%
Phoenix	10	6.5%
REALWRITE	2	1.3%
Total	153	99.9%

Note. Due to rounding error, the total percentage is 99.9%.

To determine if any dependence existed between the speed plateau perceptions held by the CRIs and the specific theory taught, statistical analyses were performed on these frequencies. Literary, jury charge, and two-voice testimony were found to be independent of the theory taught. However, Other Dictation material was found to be dependent upon theory taught at both the first and second plateaus.

Driving that dependence were sixteen different cells in the chi-square test that were found to be statistically significant. Only those cells where the counts were 5 or higher are reported, as counts lower than 5 yield tentative results even though statistically significant. Table 10 lists each statistically significant variable (where cell counts were 5 or higher) as well as the variable's ranking if the variable is a speed plateau category. The most frequent speed at which a plateau might be

experienced was ranked as 1 with the least frequent being 8. The table also includes the theory taught by the respondents' programs.

Table 10 reveals that five CRIs teaching Roberts, Walsh, Gonzalez theory perceived the speed category of 100-120 wpm as the sixth most frequent speed at which a first plateau might occur. In other words, those respondents believed this was an unlikely speed for a plateau to occur. In addition, Table 10 reports that of all respondents ranking the 100-120 wpm speed plateau anywhere from 1-8 in frequency, 6.5% of them taught Roberts, Walsh, Gonzalez theory.

Table 10

Statistically Significant Pearson Chi-Square Cells Showing Dependence Between CRIs' Perceptions of Speed Plateaus and Machine Shorthand Theory Taught

Variable	Rank	Theory	Count	% of Total	Standard Residual
100-120 wpm (1st)	6	R., W., Gonzalez	5	6.5%	2.1
120-140 wpm (1st)	5	R., W., Gonzalez	5	5.2%	2.3
160-180 wpm (1st)	1	R., W., Gonzalez	6	5.0%	2.3
180-200 wpm (1st)	1	R., W., Gonzalez	5	4.4%	2.6
Other Dictation (1st)		R., W., Gonzalez	6	3.7%	2.6
Other Dictation (1st)		Other Theory	5	3.0%	3.0
Other Dictation (2nd)		StenEd	6	3.7%	-1.9
Other Dictation (2nd)		Other Theory	5	3.0%	2.5

Conclusions

1. Certified Reporting Instructors strongly believe that students in court reporting programs experience speed plateaus. There is a strong likelihood that students experiencing a first speed plateau may later encounter a second speed plateau.

2. Factors reported as contributing most heavily to speed plateaus include outside responsibilities, lack of discipline, goal setting, theory deficiency, financial difficulties, poor English skills, and pressure. No one factor is a primary contributing factor.

3. First speed plateaus tend to occur at speeds between 160-180 wpm, although other responses following closely included 140-160 wpm and 180-200 wpm.

4. Second speed plateaus tend to occur at speeds between 180-200 wpm, although other responses following closely were 160-180 wpm, more than 220 wpm, and 200-220 wpm.

5. Two-voice dictation material is most likely to be involved in a first speed plateau, with literary material as the second choice for a first plateau.

6. Two-voice dictation material is most likely to be involved in a second speed plateau, with literary material as the second choice for a second plateau.

7. The typical duration of a first speed plateau is 20-26 weeks, while the typical duration of a second speed plateau is not firmly established.

8. CRIs responding who held the doctorate (N=6) selected 140-160 wpm for a first speed plateau.

9. CRIs with more longevity selected 200-220 wpm and more than 220 wpm as speeds where plateaus were likely to occur.

10. CRIs with more longevity selected two-voice dictation and other dictation material as areas where second plateaus were likely to occur.

11. No dependence existed between speed plateau perceptions held by CRIs and theory taught except for Other Dictation Material, which was dependent at both the first and second plateaus.

12. Gender was not related to speed perceptions nor to other demographic variables.

Recommendations

Recommendations for Court Reporting Instruction

1. Since lack of discipline was reported to be the most common factor in speed plateaus, instructors should discuss with incoming students the need for discipline, perhaps devising a specific practice plan that must be reported in some manner to the instructor on a regular basis. They should establish with the students the link between discipline and avoidance of speed plateaus.

2. Where possible, instructors should help students find assistance in dealing with responsibilities outside of school to help them avoid a speed plateau.

3. Instructors should teach students time management and goal setting skills.

4. Instructors should introduce two-voice dictation material early in the program of study since it is the most likely form of dictation material to be involved in both first and second speed plateaus.

5. Instructors should let students on a plateau know they can work through the plateau by pointing out that the typical duration of a first speed plateau is 20-26 weeks.

Recommendations for Further Research

1. Research court reporting students' perceptions of speed plateaus to determine if they are consistent with those of Certified Reporting Instructors. This would ensure a more accurate picture of speed plateaus.

2. Research into the reasons students give for dropping out of court reporting programs could be used to verify the findings of Kocar (1991).

3. Determine if the greater learning load required by realtime machine shorthand theories has influenced the completion rate of court reporting students. This might lead to the development of more effective teaching methods if positive implications are found.

4. Determine experimentally whether emphasizing the use of realtime capability for all practicing done by court reporting students leads to more hesitations and speed plateaus. This may lead to more efficacious methods of skill development.

References

Broadbent, D.E. (1971). Decision and stress. London: Academic Press.

Bryan, W.L., & Harter, N. (1897). Studies in the physiology and psychology of the telegraphic language. Psychological Review, 4, 27-53.

Carruthers, C., Porter, L., & Vaughn, M. (1990). Non-traditional court reporting education. NSR, 52(6), 34-40.

Keller, F.S. (1958). The phantom plateau. Journal of the Experimental Analysis of Behavior, 1, 1-13.

Kraushaar, B., & Lambert, S. (1987). Shadowing proficiency according to ear of input and type of bilinguality. Bulletin of the Canadian Association of Applied Linguistics.

Magill, R.A. (1993). Motor learning: Concepts and applications (4th ed.). Dubuque, IA: W. C. Brown & Benchmark.

Schmidt, R. A. (1991). Motor learning and performance: From principles to practice. Champaign, IL: Human Kinetics Books.

Travers, R. M. W. (1982). Essentials of learning: The new cognitive learning for students of education (5th ed.). New York: Macmillan Publishing.

West, L. J. (1983). Acquisition of typewriting skills: Methods and research in teaching typewriting and word processing (2nd ed.). Indianapolis, IN: Bobbs-Merrill Educational Publishing.

Winstein, C. J., & Schmidt, R. A. (1990). Reduced frequency of knowledge of results enhances motor skill learning. Journal of Experimental Psychology: Learning, Memory, and Cognition, 16, 677-691.

Managers' Perceptions And Attitudes Towards Gays And Lesbians In Business

Lisa O'Hara, Instructor
Bill McPherson, Professor
Indiana University of Pennsylvania

Abstract

In preparing future employees for work in business, many business communication courses discuss corporate cultures. Many business communication authors have stressed the need for students to be successful in today's workplace they must understand corporate culture. When discussing corporate culture, many business communication textbooks offered specific guidelines for dealing with various groups that make up the culture of the organization. Business communication curriculums are provide extensive literature on how to work successfully with various groups of people in the workplace, examples of such groups that receive attention in most business curriculums are: (1) Asians; (2) Afro-Americans; (3) Women; and (4) Handicapped. Although this is not an exhaustive list, one culture that there appears to be a dearth of literature in business communication textbooks are preparing future employees to work with gays and lesbians as a culture in corporate America.

The research focused on asking business professionals about their perceptions and attitudes towards gays and lesbians in the workplace. In addition, this research study ascertained what the current climate in the workplace is towards gays and lesbians. Certain other demographic factors were also considered. The following research questions guided the study: What are the perceptions and attitudes towards gays and lesbians in the Workplace, what is the current corporate climate in the workplace towards gays and lesbians? What types of topics, training, and instruction should be provided to business students as future employees at the undergraduate level to increase an awareness and understanding of gay and lesbian students?

Introduction

In preparing future employees for work in business, many business communication courses discuss corporate cultures. Many business communication authors have stressed the need for students to be successful in today's workplace they must understand corporate culture. When discussing corporate culture, many business communication textbooks offered specific guidelines for dealing with various groups that make up the culture of the organization. Business communication curriculums are provide extensive literature on how to work successfully with various groups of people in the workplace, examples of such groups that receive attention in most business

curriculums are: (1) Asians; (2) Afro-Americans; (3) Women; and (4) Handicapped. Although this is not an exhaustive list, one culture that there appears to be a dearth of literature in business communication textbooks are preparing future employees to work with gays and lesbians as a culture in corporate America.

Objectives of Study

The research focused on asking business professionals about their perceptions and attitudes towards gays and lesbians in the workplace. In addition, this research study ascertained what the current climate in the workplace is towards gays and lesbians. Certain other demographic factors were also considered. The following research questions guided the study:

What are the perceptions and attitudes towards gays and lesbians in the workplace?

What is the current corporate climate in the workplace towards gays and lesbians?

What types of topics, training, and instruction should be provided to business students as future employees at the undergraduate level to increase an awareness and understanding of gay and lesbian students?

Literature Review

Many human resource managers ignore the issues that affect gay men and lesbians in the workplace, to avoid resistance from other managers and employees and also because they lack education about such issues. Consequently, HR policy decisions regarding homosexual employees may be based on stereotypes and misinformation. In such cases, a significant segment of the workforce--gay men and lesbians--becomes the object of discrimination (Lucas & Kaplan, 1994).

A recent Times magazine article provided mixed reports on the progress toward social acceptance that gay men and lesbians have made in this country (Henry, 1994). Henry reported that although some positive steps have been made during the past 25 years, a period of intense gay activism, " gays may already be bumping up against the limits of tolerance" (p. 55). In reporting the results of a Time/ CNN survey conducted in June 1994, Henry noted that approximately 65% of the Americans polled thought that " homosexual rights were being paid too much attention"(p. 55). He also noted that the proportion of people who described "homosexuality" as "morally wrong" was identical to that revealed by a 1978 survey–53% (p. 55).

The gay and lesbian rights movement has spilled over into the workplace as well as into other social arenas. Management will have to take steps to diffuse any potential problems arising from the controversial issues involved.

Instrumentation

The population for the study were business professionals and employers currently listed on the Career Services list of a state-supported four-year university in the Northwest section of Pennsylvania. Age: range varied. Sex: males and females were included. Number: 523. Inclusion: currently listed employers. Exclusion: none. Business professionals and employers listed with Career Services were the population for the study. Participation was voluntary.

This study followed a descriptive research design using survey methods with statistical treatments.

The design was a cross-sectional survey. In order to minimize the disadvantages of using the survey methods, with above mentioned instrument, the "total design method" (TDM) suggested by Dillman (1978) was used as a guide. The data in this descriptive study was collected using standard mail survey procedures as described by Dillman (1978). Each of the potential participants received a coded survey packet containing the following items: (1) Cover letter describing the study to the potential participant and an outline of the procedures to be followed in completing the forms in the survey packet. (2) The survey with a section on demographics (brief questions asking for biographical and demographic information). (3) A self-addressed stamped envelope was included for the convenience of the respondent to encourage greater participation (Dillman, 1978). One follow-up was completed via postcard. In order to preserve the confidentiality of all survey respondents, each packet mailed was assigned a code number to be used for follow-up purposes. This coding insured that all survey packets remained private. One research instrument was utilized for the collection of data in this study. A researcher created scale entitled "analysis of attitudes and perceptions of towards gays and lesbians in corporate settings."

Data Analysis

Data for scores from the Likert scale were scored through the use of the Statistical Package for the Social Sciences for Windows (SPSS+ for Microcomputers, release 4.0), statistical tests were performed on the data from the scale. Descriptive and comparative analyses were made.

Findings

A total of 251 people responded to the survey. There were 8 surveys that were not usable. The total usable responses were 243, which indicate a 46% response rate.

Discussion Related To Findings

What does the workforce recommend for diversity as it relates to gay and lesbian individuals? The initial results of the research indicate that the "don't ask, don't tell" attitude that has been reported in the literature continues to exist. At issue in many cases is simply the concept of personal privacy--what may or may not be shared within the confines of the workplace relationship. Of the comments made by respondents to the open-ended questions, the privacy of one's personal actions was emphasized, both for heterosexual and homosexual employees. An individual's preference for members of the same sex could be tolerated in general, but it would be better tolerated if it was not shared with others in the workplace.

Yet one's personal life often spills over into their professional life and while heterosexual employees enjoy the privilege of sharing personal events in their lives via conversations, parties or photographs, gay and lesbian individuals are often not afforded that same privilege. Not overlooking an individual's skills and education, the fact remains that personal life--and the sexual orientation of the person--often do contribute, whether directly or indirectly, to job satisfaction and productivity. The following comment received as part of the study draws attention to the situation experienced by many gay and lesbian individuals:

The idea that sexual orientation has no place in the workplace overlooks the reality that most employees bring a lot of their personal life to work. Heterosexuals have pictures of their families in their offices, they have baby showers and wedding showers; they tell stories about their weekends; they share marital problems, etc. These examples make the gay employee feel isolated.

One respondent to the questionnaire quickly summed up the issue of gay and lesbian individuals in the workplace by indicating that "The workplace doesn't need to change, it's the attitudes of the people in the workplace."

Nearly all of the respondents (98.5%) indicated that they had met someone who was gay, lesbian, bisexual or transgender, and over half (56.6%) of those individuals considered that person to be a friend. Knowledge of openly gay or lesbian co-workers was common, as was discussion of issues relating to gay, lesbian, bisexual or transgender individuals both in and out of the workplace. Most of the respondents (73.8%) considered themselves to be "somewhat" to "very" knowledgeable concerning gay or lesbian concerns, history and culture. When it comes to feelings and concerns about these particular co-workers; however, the waters of acceptance begin to muddy

While most people know an individual who is gay or lesbian, and might possibly consider that person a friend, changes in attitudes appear when the gay or lesbian person becomes a member of the workgroup. How pervasive are anti-gay and anti-lesbian attitudes in the workforce today? The majority of respondents

believed that anti-gay or anti-lesbian attitudes do exist, with most (49.3%) indicating that they exist "to some extent." Anti-gay attitudes, replete with the associated stereotyping, jokes, and negative remarks, were most often attributed to the general workforce population. And while some derogatory comments regarding gay and lesbian individuals were attributed to management and supervisory personnel, 29.3% in both cases, as would be expected, the extent of the remarks attributed to this group was less pervasive than within the general workforce population. Over half of all respondents (54.6%) indicated that co-workers that they knew personally made anti-gay or anti-lesbian remarks.

Conclusions

The findings of the research support many of the ideas reported in the literature regarding workplace diversity based on sexual orientation, yet to report these findings alone will not improve the workplace climate. To be truly effective, the research must lend itself to ideas and strategies for improving the workplace for all employees regardless of gender, race, marital status, or sexual orientation.

As the research indicated, most people have discussed gay and lesbian issues both in and out of the workplace and consider themselves to have some basic knowledge of gay and lesbian culture and traditions. If we also consider that over half of all respondents believe that sexual orientation "matters" in the workplace, and that half also believed a person's sexual orientation could create "stressful" situations at work, then perhaps the information that is being shared is actually reinforcement of existing stereotypes. This finding again lends credence to research indicating that oftentimes many human resources policy decisions are made based on stereotypes and misinformation simply because of a fear of the unknown, or because of a lack of education or valid information regarding this segment of the population. For change to occur, correct and factual information needs to be disseminated to both the current, and potential, workforce.

There is no panacea for this particular workplace diversity issue. Fears and misinformation regarding sexual orientation abound making this a exceptionally difficult issue to face in the classroom. The survey respondents, business professionals themselves, provide the following suggestions:

- Diversity fosters creative problem solving. Diversity in the workplace is therefore a business asset--teach that angle.

- A good understanding of anti-discrimination policy and laws and how they help create workplace diversity and not just for gays and lesbians--but for all minorities.

- Stereotypes are usually wrong. Like not all blacks are lazy, not all fat people are jolly, not everyone who likes show tunes is gay.

- Teaching adaptability and flexibility in exploring other cultures.

- Explain that there really is no difference because they are fellow co-workers, and regardless of sexual orientation, employees should regard one another with professionalism.

- Case examples of real-life situations that have occurred in the workplace.

- Students need factual information without feeling that their religious beliefs have been stepped on, or their parents' teaching have been ignored.

Bibliography

Adams, M. (1996). Selling out. Sales & Marketing Management. 148, (10), 78-86.

Babbie, E. (1990). Survey research methods (2nd ed.). Belmont, CA: Wadsworth Publishing Company.

Bell, A. H. (1994). Business Communication: Toward 2000. Cincinnati, OH: SouthWestern Publishing Company.

Boone, L. E. & Kurtz, D. L. (1995). Contemporary Business Communication. Englewood Cliffs, NJ: Prentice Hall.

Borg, W. R. and Gall, M. D. (1989). Educational research (5th ed.). New York, NY: Longman, Inc.

Bovee, C. L. & Thill, J. V. (1995). Excellence in Business Communication (5th ed.). New York: McGraw-Hill, Inc.

Badgett, M. V. L. (1995). The wage effects of sexual orientation discrimination. Industrial and Labor Relations Review. 48, (4), 726 - 739.

Brinkman, H. S. (1992). Diversity in the workplace: a review and assessment of the issues that are central to high employee ratings of organizational ability in effectively managing a diverse workforce. University of Denver.

Caudron, S. (1995). Open the corporate closet to sexual orientation issues. Personnel Journal. 74, (8), 42-49.

Day, N. E. , Schoenrade, P. (1997). Staying in the closet versus coming out: relationships between communication about sexual orientation and work attitudes. Personnel Psychology. 50, (1), 147-164.

Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley and Sons.

Esteve, H. (1997). Oregon House passes bill prohibiting job discrimination by sexual orientation. Knight-Ridder/Tribune Business News. P430B1303

Fisher, A. (1997). Can I stop the gay bashing?....Why do jerks get top jobs ?...and more. Fortune. 136, (1), 205 -207.

Folbre, N. (1995). Sexual orientation showing up in paychecks. Working World. 20, (1), 15 -16.

Gossett, C. W., Riccucci, N. M. (1996). Employment discrimination in state and local government: the lesbian and gay male experience. American Review of Public Administration. 26, (2), 175-201

Henderson, D. K. (1996). The drive for diversity. Air Transport World. 33, (3), 63-68.

Henry, W. A. (1994). Pride and prejudice. Time. 143, (26), 54-59).

Hernandez, D. G. (1996). Do ask - do tell. Editor & Publisher. 129, (25), 13-15.

Hequet, M. (1995). Out at work. Training. 32, (6), 53-58.

Kardia, D. B. (1996). Diversity's closet: student attitudes toward lesbians, gay men, and bisexual people on a multicultural campus. University of Michigan.

Kovach, K. A. (1995). Proposal would expand civil rights legislation. (Employment Non-Discrimination Act). Employment Relations Today. 22, (3), 9-16.

Lewis, G. B. (1995). The corporate closet: the professional lives of gay men in America. Public Administration Review. 55, (2), 201- 203

Lucas, J. H., Kaplan, M. G. (1994). Unlocking the corporate closet. Training & Development. 48, (1), 34-39.

Malaney, G. D. ,Williams, E. A., Geller,W. W. (1997). Assessing campus climate for gays, lesbians, and bisexuals at two institutions. Journal of College Student Development. 38, (4), 365-375.

Mason, J. C. (1995). Domestic partner benefits. Management Review. 84, (11), 53-56

Mickens, E. (1994). Including sexual orientation in diversity programs and policies. Employment Relations Today. 21, (3), 263-276.

Nachmias, D. and Nachmias, C. (1987). Research methods in the Social Sciences. New York: St. Martins Press.

Randon, M. A., Norris, M. P. (1993). Sexual orientation and the workplace: recent developments in discrimination and harassment law. Employee Relations Law Journal. 19, (2), 233-246.

Smith, J. M. (1994). Sexual orientation: training can help to promote tolerance. HR Focus. 71, (1), 12-13.

Tan, D. L., Morris, L., Romero, J. (1996). Changes in attitude after diversity training. Training & Development. 50, (9), 54-56.

Woods, J. (1994). The Corporate Closet. NY: The Free Press-Macmillan.

Training Needs of Office Managers and Supervisors in State Government: Implications for Business Education

Donna H. Redmann
Louisiana State University

Abstract

This paper reports a large-scale, state-wide training needs assessment of office support/clerical employees in Louisiana state government. To identify the "felt" training needs, 11,016 surveys were distributed in a single mailing resulting in a return of 7,117 completed questionnaires, a 65 % response rate. The focus of this paper is on the training needs of office managers and supervisors, one of the eight job clusters surveyed. The paper also focuses on the methodology, survey instrument development and administration, and how the resulting data were tabulated and analyzed.

Introduction

Technological advances, globalization, and other workplace factors have placed an increased need for more competent and skilled employees in both business/ industry and state government. Numerous studies have been conducted that assessed the training needs of, competencies required by, and tasks performed by office workers in business and industry, but little has been done to examine the training needs of government office employees on a large scale (Alexander, 1996; Arney, 1998; Burkhalter, Scebra, & Deaton, 1986; Chalupa, 1997; Culbertson & Thompson, 1980; Davis, 1991; Davis, 1992; Davis & Chaney, 1993; Lut & Schoeon, 1986; Marino, 1993; McEwen, 1997; Stout & Taylor, 1983; Zhao, 1996).

Employees of the State of Louisiana are emerging from a long period during which little funding was available for employee training. A new state administration has recognized the strategic value of well-developed human resources. In 1997, the governor of Louisiana established workforce development as one of the priorities for his administration. To achieve this objective, several groups were established: the Workforce Commission within the Governor's office, a Task Force on Post-Secondary Technical and Adult Education, and the Occupational and Training Information System in the Louisiana State Department of Labor. The mission of the Occupational and Training Information Systems is to collect workforce data for the

Workforce Commission to use in setting priorities and funding decisions on training programs.

The first step required in any effective training intervention is a thorough and systematic assessment of workforce training needs. Successful needs assessments provide the basis for establishing the performance improvement value of subsequent training. Because of the highly varied nature of agencies and units in state government and the large volume of needs assessments that had to be conducted, Louisiana State University was contracted to assist in assessing and prioritizing training needs. During the initial funding period (the first six months), this needs assessment project consisted of two phases. Phase I was to identify the current training needs of approximately 12,000 incumbent office support/clerical employees within the state civil service system for all departments and agencies throughout the entire state. Phase II was to develop a method for conducting needs assessment for all employees within a state department and to pilot this methodology with two departments. The second period of funding (a two-year period) is a continuation of Phase II which involves identifying the performance training needs of Louisiana state government employees for individual departments based on the methodology developed during the pilot study.

The focus of this paper will be on the large-scale training needs of state government office support/clerical workers that was conducted during Phase I of the initial funding period. The paper will cover the objectives of Phase I, the methodology employed to accommodate those objectives, including how the survey instrument was developed and administered, how the resulting data was tabulated and analyzed, and will present findings and recommendations. The paper will also explore the implications for Business Education as well as for Human Resources Development (HRD) training in government and business/industry.

Review of Related Literature

Since the literature on the training needs of government office workers is limited, the review of literature used for this study was broadened to include research conducted in business and industry. Two research areas were reviewed in preparation for conducting this wide-scale needs assessment of state office support/clerical government employees: training needs assessment of office workers and job competencies required of office workers in business and industry.

management, functioning in the organization, delegation, safety, affirmative action, conducting meetings, termination procedures, interviewing, and hiring procedures.

Davis (1992) surveyed trainers who were members of the Secretarial/Clerical Trainers Network of the American Society for Training and Development (ASTD) to determine their perceptions of what specific content areas should be emphasized by educators in secondary and post-secondary office system curricula. The trainers recommended that office systems educators continue to emphasize communication skills, human relations skills, and personal characteristics. The findings from Davis' (1992) study indicated a need to shift the training emphasis in traditional office support skills and in computer/technology skills. That is, it was found that increased emphasis should be placed on computer/technology related application skills rather than on the understanding of the concepts and terminology. Similarly, it was recommended that more emphasis be put on telephone techniques than on transcription of dictation, and more emphasis on transcription from machine dictation than from shorthand notes. Further, it was found that more value be placed on keyboarding accuracy than on speed.

In a survey of in-house training programs for office staff, Davis (1991) found that a majority of companies were providing training in the following areas: word processing, time management, telephone techniques, written and oral communications, listening skills, spreadsheets, introduction to computers, managing stress, teamwork, supervisory skills, and databases. The implication for office systems curricula is that the following content areas be emphasized: communications skills, human relations skills, personal characteristics, traditional office skills, computer applications, problem-solving and decision-making skills, leadership skills, and computer terminology.

Job Competencies

Technology Skills. Another study that examined the perception of training professionals in business and industry was conducted by Arney (1998), in which human resource managers from the top 100 public businesses headquartered in Indiana were surveyed to determine the importance placed on various computer skills. The perceptions of these human resource managers were compared to the perceptions of faculty from colleges and universities in Indiana offering a baccalaureate degree in business administration. Both groups agreed that the use of word processing and spreadsheet software were the most important computer application skills for the business administrative graduate to possess. They also rated

highly the need to understand the role of the computer as an aid in solving problems. Universities tended to place a higher value on the ability to use the Internet than did business and industry. Both groups agreed that desktop publishing software should be de-emphasized.

A study of Fortune 500 human resource executives conducted by Zhao (1996) recommended that business students possess computer end-user skills in each of the following areas: computer hardware, operating systems, word processing, spreadsheet, database, desktop publishing, programming in word processing, telecommunications and groupware. The following 11 specific computer end-user skills were highly recommend: "using keyboard, microcomputer, mouse, printer, Windows, Excel, e-mail, Internet, and LAN, downloading files, and finding information" (Zhao, 1996, p. 164).

In a survey of 408 administrative support personnel working in New York City, Marino (1993) found that a large percentage of the respondents (secretaries, executive secretaries, administrative secretaries, or administrative assistants who use information technologies) felt they were proficient only in using word processing software, printers, copiers, and facsimile equipment. Chalupa (1997) examined the presentation software usage in the workplace and found that PowerPoint in the Windows environment was the most popular followed by Harvard Graphics.

Nontechnical Competencies. According to Luft and Schoen (1986), employee success depends on both technical and nontechical business competencies. Luft and Schoen grouped nontechnical skills as problem solving, stress management, professional characteristics, communication skills, and human relations principles. Illinois employers in Luft and Schoel's (1986) survey placed minimal emphasis on stress-related competencies.

In a study to determine the secretary's role in training co-workers in computer technologies, Alexander (1996) surveyed members of Professional Secretaries International (PSI). Respondents overwhelmingly recommended that instruction on "how to train others" be added to the office curricula. In another study of Professional Secretaries International, Burkhalter, Scebra, and Deaton (1986) found that all secretaries use most time management principles to some extent. Therefore, it was recommended that business educators continue to teach time management principles.

The focus of these studies and of the present study is the identification of those types of training and skills that are important to office workers in performing their jobs more efficiently and effectively. The cumulative impact of these research efforts will be in the structure and content of curricula for trainers in government, business, and industry and for educators in secondary and post-secondary business education programs. Because of the rapid changes occurring in the workplace, it is essential that business trainers and educators provide well-rounded curricula that will enable students to perform effectively in all aspects of employment.

Phase I Objectives

The objective of Phase I of the Louisiana State Needs Assessment Project was to conduct a needs assessment to identify current training needs for office support/clerical employees within the state civil service system. The specific objectives were to identify the training needs of office support/clerical employees: (1) for all office support/clerical employees, (2) by job clusters, (3) for each state department, and (4) for each agency within the departments. This research paper will focus on the training needs of the Office Management job clusters and will explore the implication for Business/ Office Education as well as Human Resource Development (HRD) training in government and business/industry.

Methodology

Instrumentation

As a first step in the design and implementation of a training needs assessment program, it is essential to properly appreciate and understand the scope of the problem that was addressed. To this end, a preliminary series of meetings was held between the Phase I Project Coordinator and various State officials that were identified by the Director of the Comprehensive Public Training Program (CPTP), Division of Administration. These meetings were instrumental in exposing the complexity of job titles, job descriptions, GS levels, and other intricacies of the State Civil Service System. Furthermore, they helped form a foundation upon which the task of identifying office worker classifications that should be surveyed for possible training needs. The overall process required an examination of specifications for office/clerical job titles associated with series 4000 registers (no typing test required of applicant) and with series 4002 registers (typing test required of applicant). Ultimately, 45 job titles were selected for the training needs assessment survey of office support/clerical employees. Based on job descriptions and GS levels, these 45

job titles selected were subsequently grouped into the following seven clusters: Accounting, Administrative, Office Management, Clerical, Secretarial, Transcription, Word Processor, and University Admission.

The next step involved identification of the appropriate content of the survey instrument. Focus groups were employed to determine important areas for inclusion in the training assessment study; a total of eleven focus group meetings were conducted These focus groups consisted of State office/clerical workers representing multiple State agencies and encompassing a wide range of job titles. As a result of the 11 focus group meetings, it was discovered that there was considerable commonality of identified training needs across the groups. Therefore, it was decided that a single questionnaire should be developed. Also, it was anticipated that having one questionnaire would reduce the complexity of managing the distribution, collection, and tabulation of multiple versions of the instrument across the various State government departments and groups of office workers.

Based on the information obtained from the focus groups, a draft of the questionnaire was developed. A panel of experts was employed to review the questionnaire for content and design. A field testing of the survey instrument was conducted with 16 office/clerical workers from the Department of Environmental Quality (DEQ), representing a wide range of job titles and various agencies within DEQ. The volunteers were asked to provide any suggestions or recommendations that would improve the instruments, to check the wording of the items, to make sure the directions were clear and understandable, and to keep track of their time in order to estimate how long it would take the typical respondent to complete the questionnaire. The average time to complete the survey instrument was 15 to 20 minutes.

The final draft of the survey instrument contained a total of 67 items covering nine training topic areas, 3 questions dealing with computer and related technology, space for writing open-ended recommendations and comments, and a section on demographics. The nine topic areas consisted of oral communication, written communication, files/filing, general skills, human skills, personnel issues, understanding general state procedures, understanding your department/agency, and work management skills. For each of the 67 training topics listed, the respondents were asked to use the following scale to indicate how much their job performance would improve if they were to be provided training in the topic listed: 1 = None, 2 = A Little, 3 = Somewhat, 4 = A Lot, 5 = A Great Deal, and N = Not Applicable. The frequency response to this scale was employed in the ensuing statistical analysis

to provide a ranking of the relative importance of the various training topics addressed.

In addition to the 'pure' training topics covered above, the survey instrument included a section on computer and related technology wherein respondents were asked to identify the version of listed software used in performing their job. Further, they were asked to indicate their training needs for basic computer literacy, mainframe, a wide range of application software (e.g. WordPerfect, Lotus, PowerPoint), electronic mail, and the Internet. The respondents were also asked if they would be interested in being trained to be an in-house resource person to help co-workers with computer software/hardware problems. Finally, in the demographic section of the questionnaire, the respondents were asked to identify their job title from among the list of 44 job titles surveyed. Additional questions dealt with work location, number of years spent working for the Louisiana State Government, the number of years in current position, and level of education.

To reduce overall respondent error rate and encoding errors, a scantron sheet format was employed for the four-page survey instrument. The respondents were instructed to use a number two pencil to bubble in their responses. A side benefit of using a scantron sheet format is that the respondents' time to complete the questionnaire would be lessened somewhat, therefore, it was anticipated that they would spend less time away from their job and would be more likely to complete and return the survey.

To ensure anonymity, respondents were asked to identify their department, agency, and work location only. Upon receipt of the completed questionnaire, the CPTP staff assigned the appropriate organization I.D. number to a questionnaire I.D. code sheet. This scantron I.D. code sheet was designed to accompany the questionnaire for the purpose of associating the individual questionnaires with the appropriate organizations.

Administration of the Survey Instrument

The staff at the CPTP distributed the questionnaires to contact persons (human resource director or related person) at 272 State agencies. These contact people then distributed the questionnaires to all their office support/clerical workers. The contact people were asked to return the completed questionnaires within 3 weeks. Of the 11,016 questionnaires distributed statewide, a total of 7,117 completed questionnaires were received. The overall response rate for the State was 65%. For

the Office Management job cluster, 616 questionnaires were sent and 433 completed instruments were returned, a 70.3 % response rate.

Statistical Analysis of Survey Results for the Office Management Job Cluster

For the Office Management job cluster, representing six job titles, statistical analysis software (the SAS System for Windows, Release 6.11) was employed to: (1) tabulate the scale response frequency for each questionnaire training topic; (2) rank order the 67 questionnaire training topics, based on an assigned score which is the percentage of the respondents that rated that item in either of the two categories of highest importance ("A Lot" and "A Great Deal"); (3) establish frequency and percentage responses for basic and advanced computer training needs, for training as an in-house resource person, and for demographic information.

To recommend training for the 67 topics, the following criteria were used: If the ranked order score received was 60% or higher, then there was a perceived Widespread Need for training related to that item; if the score was between 40% and 59.9%, then there was Selected Group Need; and if the score was below 40%, then there was Individual Employee Need for that training item. For example, a score of 66.3 indicates that 66.3 % of the respondents rated the item either as of "A Great Deal" or "A Lot" with regard to its importance relative to their job performance. Therefore, this training item would be identified as a widespread need for training. For the basic and advanced computer training needs recommendations, the "need basic training" and the "need more advance training" response categories were reported separately in rank order with the highest need listed first.

Due to the comprehensiveness and large scale nature of this statewide training needs assessment of office support/clerical employees, the survey findings were delivered to CPTP in the following formats: (1) Global responses, based on all 7,117 completed questionnaires received; (2) Per job cluster, based on the eight different groups of job titles; and (3) For each of the 272 State organizations as identified by organizational I.D. number. The information provided in the first two formats was for use by CPTP in planning statewide and/or multi-agencies training. The third format was provided to each of the 272 agencies/ organizations with a guide/key for interpreting the results.

Findings and Recommendations

Response Rate

Of the 11,016 questionnaires sent statewide on May 19, 1997, a total of 7,117 completed questionnaires was received. The overall response rate for the State was 65%. For the office management cluster of job titles, 616 questionnaires were mailed and 433 completed instruments were returned, a 70.3 % response rate. There are six job titles within the office management job cluster. The number of questionnaires received and response rate per job title are listed in Table 1.

Table 1. Response Rate Per Job Title

Job Title	Number of Questionnaires Sent	Number of Responses Received	Percent Received
Office Manager 1	127	91	71.7 %
Office Manager 2	236	159	67.4 %
Office Manager 3	119	94	78.9 %
Office Manager 4	60	36	60.0 %
Office Manager 5	22	15	68.2 %
Office Supervisor	52	38	73.1 %
TOTALS	616	433	70.3 %

Training Topics

Findings based on the ranking of an assigned score derived from responses to the 67 questionnaire items dealing with training topics are presented below for the office management cluster of job titles. Employing the criteria detailed above, 7 of the training topics had been identified as Widespread Need, 41 training topic have been classified as Selected Group Need and 19 training topics have been termed as Individual Employee Need. This classification of the training items is based on an assigned score (% A Lot/ A Great Deal), rank, and the number of not applicable (N/A) responses for each questionnaire item. The rank order of the item is based on

the percentage of responses received as "A Lot" and "A Great Deal." For example Rank 1 received the highest rating and Rank 67 the lowest rating of importance.

Widespread Need. The top seven ranked items received an assigned score of between 60.1 and 68.7%, indicating that 60-69 % of the respondents rated these item either as of "A Great Deal" or "A Lot" of importance to them in improving job performance. The top seven training topics are listed in Table 2. Five of the seven topics deal with personnel issues and two deal with human skills. The item rated as the most important training need deals with disciplinary actions.

Because approximately 60 to 69 % of the office managers and supervisors considered these 7 topics to be important to them in improving their job performance, it was recommended that these training topics receive a high training priority.

Table 2: The Top Seven Widespread Training Needs Identified (60.1% to 68.7%)

Rank	Training Topic	Rank Order Score	Topic Area
1	When and how to take disciplinary actions	68.7 %	Personnel Issues
2	Dealing with difficult people who are co-workers, supervisors, and subordinates	67.5 %	Human Skills
3	How to prepare and evaluate a job description	67.1 %	Personnel Issues
4	Stress management/stress relief	66.4 %	Human Skills
5	Conflict resolution with co-workers, superiors, and subordinates	63.1 %	Human Skills
6	General knowledge of Civil Service Rules	61.7 %	Personnel Issues
7	Job interviewing techniques for hiring new employees	60.1 %	Personnel Issues

Selected Group Need. Of the 41 selected group training topic needs, 15 received assigned scores ranging from 50.4 % to 58.6 % (rank 22 to 8 respectively), indicating that there is a need to provide training in these areas to select groups of employees. Because over 50 % of the respondents rated these 15 as important, it was recommended that training on these 15 topics (listed in rank order in Table 3) be provided to appropriate employee groups.

Table 3: The Top 15 Selected Group Training Needs Identified (58.6% to 50.4%), Ranked 8 to 22

Topic Area	Training Topic	Rank	Rank Order Score
Human Skills	Counseling skills	8	58.6 %
	Dealing with difficult members of the public	9	58.2 %
	Making the workplace a more professional environment	12	56.9 %
	Dealing with irate telephone calls	14	54.6 %
	Teamwork	20	51.3 %
General Skills	Skills for providing on-the-job training/instruction to others	10	58.1 %
	How to write a procedures manual for your job	18	52.4%
Work Management Skills	Decision making skills	11	57.4 %
	Prioritizing task	19	51.8 %
	How to handle multiple tasks	22	50.4 %
Files/Filing	Computer filing systems	13	54.7 %
Personnel Issues	Civil service policies related to leave balances	15	53.4 %
	Preparing policies, procedures, and rules	17	52.8 %
Written Communication	Writing Skills for letters, memos, technical reports, etc.	16	53.0 %
	Grammar/punctuation / Business English / proofreading skills	21	50.4 %

The remaining 26 of the 41 items identified for selected group training received assigned scores ranging from 40.3 % to 49.3 % (rank 48 to 23 respectively), and are indicated in Table 4 according to their topic area. These 26 topics fell under the following topic areas: oral communications (3 items), written communication (1 item), files/filing (1 item), general skills (3 items), personnel issues (4 items), understanding general state procedures (3 items), understanding your department/agency (7 items), and work management skills (4 items). These 26 training topics were indicated to be important for job performance according to 40 to 49 % of the 433 respondents. The number of topics appears to be somewhat high, therefore, it was recommended that training in these areas may need to be considered in terms of the importance to the individual agency or department.

Table 4. The Remaining 26 Needs Identified for Selected Group Training (49.3 to 40.3 %), Ranked from 23 to 48.

Topic Area	Training Topic	Rank	Rank Order Score
Work Management Skills	Dealing with deadlines	23	49.3 %
	Goal setting	24	49.2 %
	Following up on tasks and pending files	25	47.9 %
	How to locate and retrieve information	26	47.9 %
Understanding Your Department/ Agency	Cross training to fill in for other employees in your department	27	47.8 %
	Departmental laws, policies, and procedures	33	45.5 %
	Department emergency procedures	36	45.2 %
	General responsibilities of other in your department	40.5	42.7 %
	Laws governing your department's release of information or records to the public	44	42.4 %

Topic Area	Training Topic	Rank	Rank Order Score
	Departmental payroll procedures	45	41.3 %
	General workflow within your department	46	41.1 %
Files/filing	Confidentiality / record retention / archive policies, and procedures	28	47.3 %
Understanding General State Procedures	Purchasing procedures	29	46.6 %
	State inventory procedures/policies	32	45.8 %
	Civil Service forms	35	45.3%
Written Communication	Format for business documents (e.g. letters, reports, envelopes)	30	46.1 %
Personnel Issues	Equal Employment Opportunity Law	31	46.1 %
	State policy on violence in the workplace	32	45.4 %
	Sexual Harassment Law	47	40.5 %
	How to work with people with disabilities	48	40.3 %
General Skills	Understanding Louisiana state government	37	44.7 %
	Confidentiality laws	38	43.8 %
	Preparing for meetings (e.g. researching information, preparing charts/tables, etc.)	39	42.9 %
Oral Communication	Client/customer interview skills	40.5	42.7 %
	Receiving, giving, and following instructions/directions	42	42.6%
	Communicating with the public	43	42.4 %

Individual Employee Need. Nineteen training topics received lower assigned scores ranging from 15.3% to 37.6 % (rank 67 to 14 respectively), indicating that there may be a need to provide training to individual employees. Training topics were found in six training topic areas as indicated in Table 5. The lowest rated item (15.3 %) deals with proper dress/attire for the office. Over one-third of the respondents rated 15 of these 19 as important to their job performance. The number of topics appears to be excessive, therefore, it was recommended that requests for training on these topics not be done across the various state organizations for the office managerial group of office support/clerical workers, but that the training recommendations come from the individual organizations (agency/department).

Table 5. Training Topics (19) Identified for Individual Training Needs (37.6 % to 15.3%), Ranked from 49 to 67.

Topic Area	Training Topic	Rank	Rank Order Score
Understanding Department/ Agency	Departmental specialized terminology	49	37.6 %
	Departmental routing procedures and/or distribution of forms/documents	54	34.2 %
	General organizational structure/chart for your department	56	32.1 %
Understanding General State Procedures	Rental and leases procedures	50	37.2 %
	State travel policies/procedures	53	35.1 %
	State vehicles policies/procedures	59	30.3 %
	Mail procedures	65	23.6 %
Human Skills	Providing information to the public including the media	51	35.5 %
	Customer service	52	35.5 %

Topic Area	Training Topic	Rank	Rank Order Score
General Skills	Use of office equipment (e.g. telephone, fax, microfilm, scanners, copiers, etc.)	55	32.8 %
	Typing/keyboarding	61	27.5 %
	Reading improvement	62	27.2 %
	Basic accounting/bookkeeping	63	25.9 %
	Using math in your job	64	24.2 %
	Proper office dress/attire	67	15.3 %
Files/Filing	Filing and record keeping procedures	57	32.0 %
Oral Communication	Effectively use voice mail	58	31.1 %
	Telephone etiquette	60	29.6 %
Written Communication	Using directories (e.g., zip codes, etc.)	66	20.5 %

Software Usage. The respondents were asked to indicate what **version of software** they were using in their job. Table 6 list software usage for office managers and supervisors. The DOS version of Word Perfect took the lead in software usage followed by the original Windows version (3.1 or 3.11) and the Windows 95 version of WordPerfect. Therefore, it was recommended that all versions of WordPerfect be considered for computer training where appropriate.

Computer Training Needs. The respondents were also asked to indicate what computer training they felt was needed in order to perform their job more effectively on two levels: basic training and more advanced training. The respondents in the managerial job cluster ranked Internet training as their number one **basic computer training need** (53.3%), followed by E-mail (47.6 %) and Windows 95 (47 %). Between 33.8 % and 41.1 % of the 433 respondents indicated a felt need for training in the following areas in descending order: Microsoft Word, Lotus Notes, dBase,

Microsoft Access, DOS, Excel Spreadsheet, Lotus Spreadsheet, Grammar Checker, Harvard Graphics, and PowerPoint. (See Table 7.) It appears that a significant number of office workers felt they could benefit from training in these computer areas. Less than one-third of the respondents felt there is a need for basic training in departmental mainframe (30.6 %), WordPerfect (29.8 %), and basic computer literacy (26.3 %).

Table 6: Software Usage

Software	DOS	Original Windows	Windows 95
WordPerfect	24.5 %	20.2 %	12.8 %
Microsoft Word	2.4 %	5.4 %	7.6 %
Lotus Spreadsheet	8.0 %	7.7 %	4.4 %
Excel Spreadsheet	.8 %	1.4 %	4.7 %
dBase	9.1 %	1.1 %	1.4 %
Microsoft Access	1.1 %	3.0 %	4.4 %
Harvard Graphics	3.5 %	1.4 %	0.5 %
PowerPoint	0.0 %	0.8 %	3.0 %

Table 7. Basic Computer Training Needs

Rank	Training	Percent	Rank	Training	Percent
1	Internet	53.3 %	9	Excel Spreadsheet	36.2 %
2	E-mail	47.6 %	10	Lotus Spreadsheet	35.5 %
3	Windows 95	47.0 %	11	Grammar Checker	34.8 %
4	Microsoft Word	41.1 %	12	Harvard Graphics	34.7 %
5	Lotus Notes	40.0 %	13	PowerPoint	33.8 %
6	dBase	39.5 %	14	Your department mainframe	30.6 %
7	Microsoft Access	38.0 %	15	WordPerfect	29.8 %
8	DOS	37.7 %	16	Basic computer literacy	26.3 %

For the area of **more advanced computer training**, only one topic was ranked slightly higher than the other topics--WordPerfect (31.6 %), followed by Basic computer literacy (24.7 %). Between 15.0 % and 19.4 % of the managerial employees expressed a need for advanced training on their departmental mainframe, Lotus Spreadsheet, Windows 95, E-mail, and DOS. For this job cluster of office workers, the following advanced computer training topics did not appear to be critical to these employees, as a whole, in performing their job: Microsoft Word, Internet, Microsoft Access, dBase, Excel Spreadsheet, Grammar Checker, Lotus Notes, PowerPoint, and Harvard Graphics. See Table 8.

It is interesting to note that the survey revealed that many employees were still using DOS and original versions of Windows. Because these technologies are changing so rapidly and the fact that State government is committed to upgrading technologically, it was recommended that computer training needs be assessed more frequently.

Table 8. More Advanced Computer Training Needs

Rank	Training	Percent	Rank	Training	Percent
1	WordPerfect	31.6 %	9	Internet	10.9 %
2	Basic computer literacy	24.7 %	10	Microsoft Access	9.2 %
3	Your department mainframe	19.4 %	11	dBase	8.9 %
4	Lotus Spreadsheet	17.4 %	12	Excel Spreadsheet	8.8 %
5	Windows 95	17.1 %	13	Grammar Checker	8.6 %
6	E-mail	15.9 %	14	Lotus Notes	7.6 %
7	DOS	15.0 %	15	PowerPoint	6.9 %
8	Microsoft Word	11.1 %	16	Harvard Graphics	6.1 %

In-House Trainers. To determine whether any of the managerial office workers would like to be trained as an in-house resource person helping co-workers with computer software/ hardware problems, a question to this effect was included in the survey instrument. Over a forty percent (42.2 %) indicated that they would like to receive this type of training and 16.8 % indicated there was already someone trained in their department. Approximately another forty percent (41.0 %) of the respondents were not interested in receiving this type of training. It was highly recommended that this type of training be offered to those managerial office employees who are willing to assist their co-workers with computer-related problems.

Conclusions, Implications, and Recommendations

The findings of this study are generally supported by the review of literature, with the exception of stress management. In this study, stress management was ranked fourth as a training need for the managerial job cluster, whereas business and

industry employers in Luft and Schoel's (1986) survey placed minimal emphasis to stress-related competencies. Stress management was not mentioned in the studies conducted by Spikes (1988), Stout and Taylor (1983), and Culbertson and Thompson (1980) Factors that may contribute to this difference in findings are: employee's versus employer's perception, public versus private job sector, and the time lapse between the two studies.

The approach utilized and the unique problems encountered in this study of an unusually large-scale needs assessment of office workers may be useful to other organizations in their move to performance driven human resource development. Examples of the unique problems associated were:

1. ALL employees throughout the entire state were to be given the opportunity for input;

2. 45 different job titles and civil service job descriptions were to be included;

3. The reading levels of the office support staff had to be considered in the development of the survey instrument;

4. Political implications, e.g., all state government departments throughout the entire state were to be included in the study; and

5. This statewide needs assessment had to be conducted within a six-month period.

Implications for Governmental Training. Effective performance related need-assessments should to be linked to multidimensional strategies that include both top-down and bottom-up approaches to collecting information. The wide-scale survey used in this study did offer an efficient means for surveying an extremely large number of employees in a short period of time. According to Holton (1995), large-scale "felt needs" training assessment can be effective at boosting morale, but may have minimal success in improving performance. Therefore, the results from a large-scale felt needs survey should not be the only source used for identifying performance improvement training.

Implications and recommendations for Business and Office Education are based on the study findings for the office manager/supervisor job cluster of government office workers, which is supported by the literature. Listed below are suggestions for

the business and office curriculum at both the secondary and post-secondary levels, as well as, training for office workers in business/industry and government.

1. **Personnel issues** and **human relations skills** should be a top priority for office managerial training. Previous studies also recommended training for office workers in the areas of personnel issues and human relations (Culbertson & Thompson, 1980; Davis, 1991; Spikes, 1988; Stout & Taylor, 1983). Personnel issues related to disciplinary actions, preparing and evaluation a job description, and Civil Service Rules should be considered for training. In the area of human relations, the following areas should be addressed: dealing with difficult people who may be co-workers or members of the public, stress management, and conflict resolution. Curriculum attention should also be given to developing current and future employees' counseling skills, professionalism, teamwork skills, customer service skills, skills for dealing with violence in the workplace, skills for working with people with disabilities, and techniques for preparing policies, procedures, and rules.

2. Curriculum should address **interviewing skills** beyond the skills used for obtaining a job, to include skills that involve interviewing/hiring employees and interviewing clients/customers. Studies completed by Culbertson and Thompson (1980) and Stout and Taylor (1983) support these findings.

3. **Work management skills** should cover: dealing with deadlines, goal setting, following up on tasks and pending files, how to locate and retrieve information, decision making skills, prioritizing tasks, and how to handle multi-tasks. Similar work management skills were recommended for office workers by Burkhatler, Scebra, and Deaton (1986), Culbertson and Thompson (1980), Spikes (1988), and Stout and Taylor (1983).

4. Because **training** and continuous **retraining** has become a way of life in office occupations, it important that students be prepared for this workplace reality. The findings from this study stressed the need for the following types of skills: providing training/instruction to others, cross training to fill in for other employees, how to write a procedures manual for one's job, and serving as an in-house computer/software trainer.

5. **General office/business skills** should include the ability to understand an organizational structure/chart, general workflow patterns, general emergency

procedures, purchasing and inventory procedures, travel procedures, mail procedures, payroll procedures, and proper office/business dress. It is also recommended that office managers and supervisors have training in how to prepare for a business meeting. Training topics in the area of personnel issues should include a general understanding or awareness of Civil Service as type of employment system, Equal Employment Opportunity Law, Sexual Harassment Law, confidentiality laws, an understanding of policies regarding the release of information to the public, and the importance of policies, procedures, and rules. Culbertson and Thompson (1980) found similar training needs in their study.

6. **Filing** procedures should include computer filing systems, as well as basic filing and record keeping procedures. Filing training should also include confidentiality, record retention, and archive policies/procedures.

7. **Oral and written communication skills** should also continue to be emphasized. Culbertson and Thompson (1980), Davis (1991), Stout and Taylor (1980) also found communications skills to be important to office workers. This study found that business correspondence skills for writing and formatting letters, memos, technical reports along with grammar, punctuation, Business English, using directories, and proofreading skills are essential skills for office employees. Providing students with the ability to write one's own job procedures manual is also considered an important skill. Students should be made aware of the importance of using specialized forms in the office, e.g., Civil Service forms. Practice/drills should be provided in the office curriculum that reinforces the academic skill of receiving, giving, and following both oral and written instruction. Oral communication training should involve telephone etiquette and the proper procedure for voice mail.

8. **Basic skills** should include reading, business-related math, grammar, punctuation, Business English, proofreading skills, keyboarding, formatting, use of office equipment, basic accounting/bookkeeping, and specialized terminology. Similar recommendations were made by Davis (1991 & 1992 and Stout and Taylor (1980).

9. **Computer/software training** should continue to be a significant component in the curriculum. General technical skills identified by Arney (1998), Davis (1991 & 1992), Marino (1993), and Zhao (1996) are similar to the following recommendations. Computer skills should include basic computer literacy,

a general understanding of computer mainframes, the Internet, e-mail, and Windows. Software training should include word processing, spreadsheet, databases, presentation software, and grammar checkers. For students/employees wanting advanced software skills, curriculum should provide advanced training in the following: word processing, computer literacy, e-mail, and the Internet. Because technology is changing so rapidly, the emphasis should continue to be on **transferability** of computer/software skills in order for students to have the skills and confidence to transfer their knowledge and skills to new technology.

10. For the more advanced student, it is highly recommended that curriculum consideration be given to training students as **in-house computer/software trainers** who would assist their future co-workers with computer-related problems.

Recommendations for Future Research. Based on the findings from this study, the following recommendations for further research are suggested: (1) Determine whether the type and amount of prior occupational training influences state government office employees' need for training. (2) Identify the most appropriate training delivery system for state government office employees.

References

Alexander, M. W. (1996). The secretary's new role as trainer: Implications for office educators. Office Systems Research Journal, 14(2), 19-25.

Arney, Janna B. (1998). A comparison of computer skills needed by business administration graduates as perceived by colleges and universities and human resource managers in Indiana. NABTE Review, 25, p. 44-48.

Burkhalter, B. B., Scebra, J. B., and Deaton, W. L. (1986). Research reveals time management important to secretaries in the information age. Delta Pi Epsilon, 28(4), 211-222.

Chalupa, M. R. (1997). The status of presentation software usage in the workplace. Office Systems Research Journal, 15(1), 33-41.

Culbertson, K., & Thompson, M. (1980, February). An analysis of supervisory training needs. Training and Development Journal, 34(2), 58-60, 62.

Davis, D. C. (1991). Status of in-house training programs for office support staff with implications for office systems curricula. Office Systems Research Journal, 10(1), 15-21.

Davis, D. C. (1992). Skills needed by office support staff as perceived by

trainers. The Delta Pi Epsilon Journal, 34(1). 13-23.

Davis, B. D., & Chaney, L. H. (1993). Problems of corporate training and development personnel. Office Systems Research Journal, 11(3), 26-33.

Holton, E. F. III (1995). A snapshot of needs assessment. In J. Phillips & E. Holton (Eds.), In action: Conducting needs assessment. Alesandria, VA: ASTD Press. pp. 1-2.

Luft, R. L., & Schoen, J.L. (1986). Nontechnical business employment competencies in Illinois. Delta Pi Epsilon Journal, 28(3). 147-157.

Marino, P. (1993). Job design and skill level in using information technology: Perceptions of administrative support personnel in financial organizations. The Delta Pi Epsilon Journal, 35(3). 121-137.

McEwen, B. C. (1997). Preparing office professionals for the next century. Business Education Forum, 52(1), 42-45.

Spikes, W. F. (1988, November). An identification of management training needs of public sector employees. Paper presented at the 1988 American Adult & Continuing Education Conference, Tulsa, Oklahoma. (ERIC Document Reproduction Service No. ED 299 433)

Stout, V. J.; and Taylor, H. W. (1983, Spring). Identification of technical, human, and conceptual skills needed by clerical, managerial, and professional employees who use information technology. Office Systems Research Journal, 1(2), 25-32.

Zhao, J. J. (1996). Recommended computer-end-user skills for business students by fortune 500 human resource executives. The Delta Pi Epsilon Journal, 38(3). 155-166.